

FIG. 1A

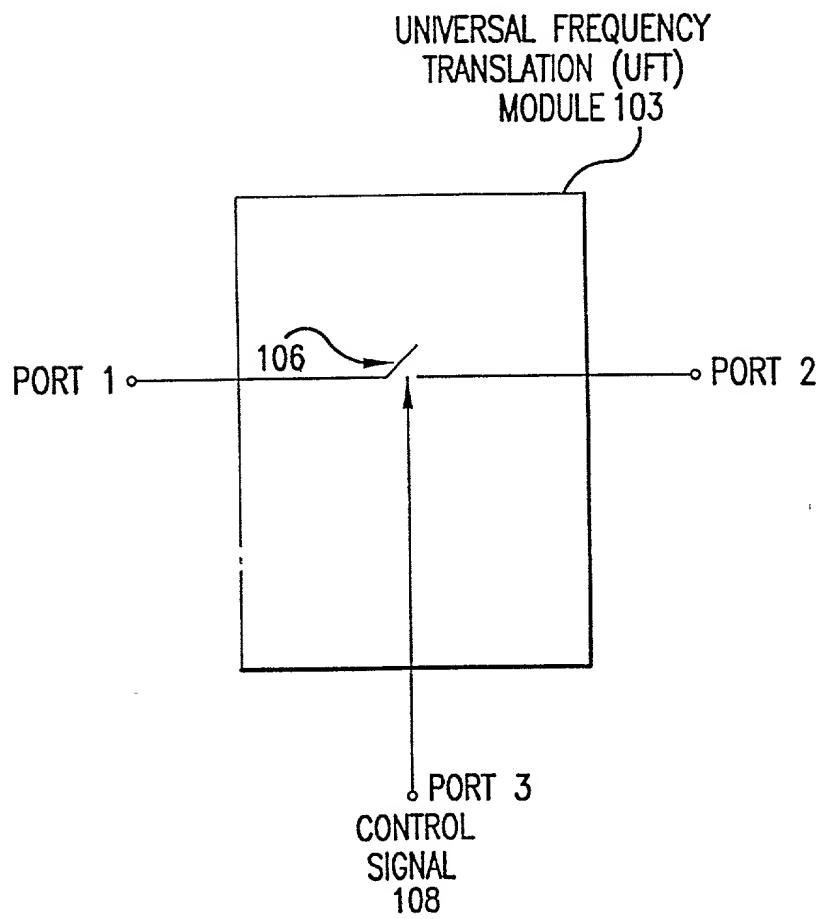


FIG. 1B

10000000000000000000000000000000

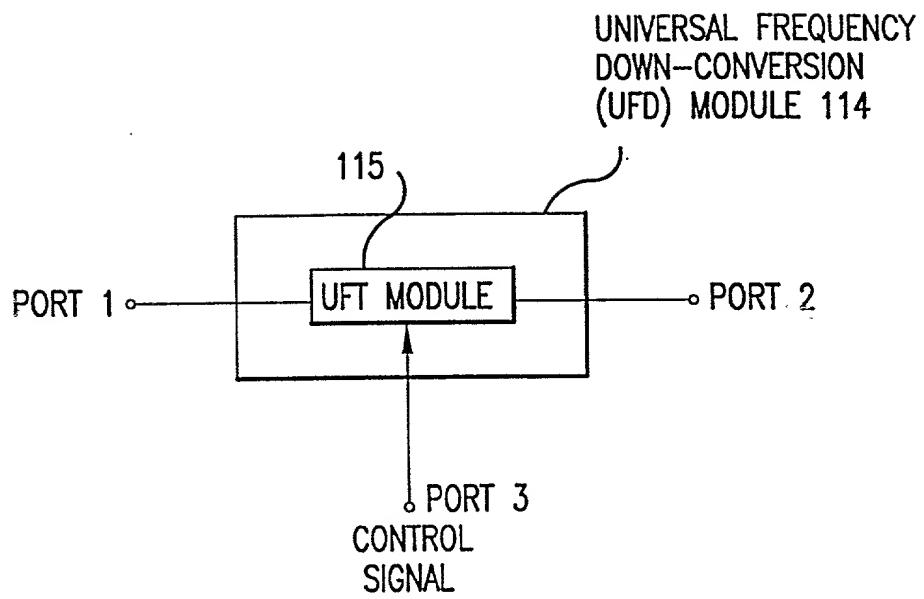


FIG.1C

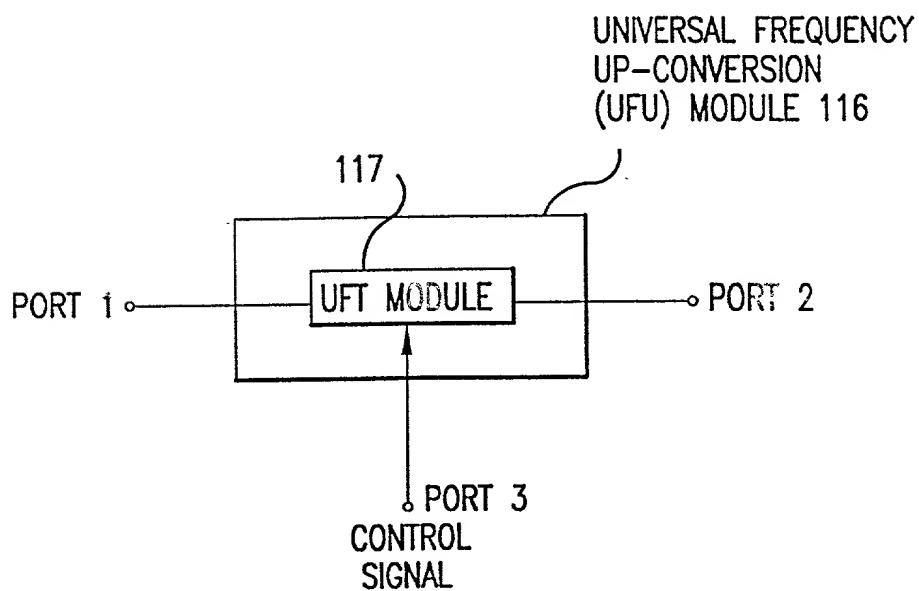


FIG.1D

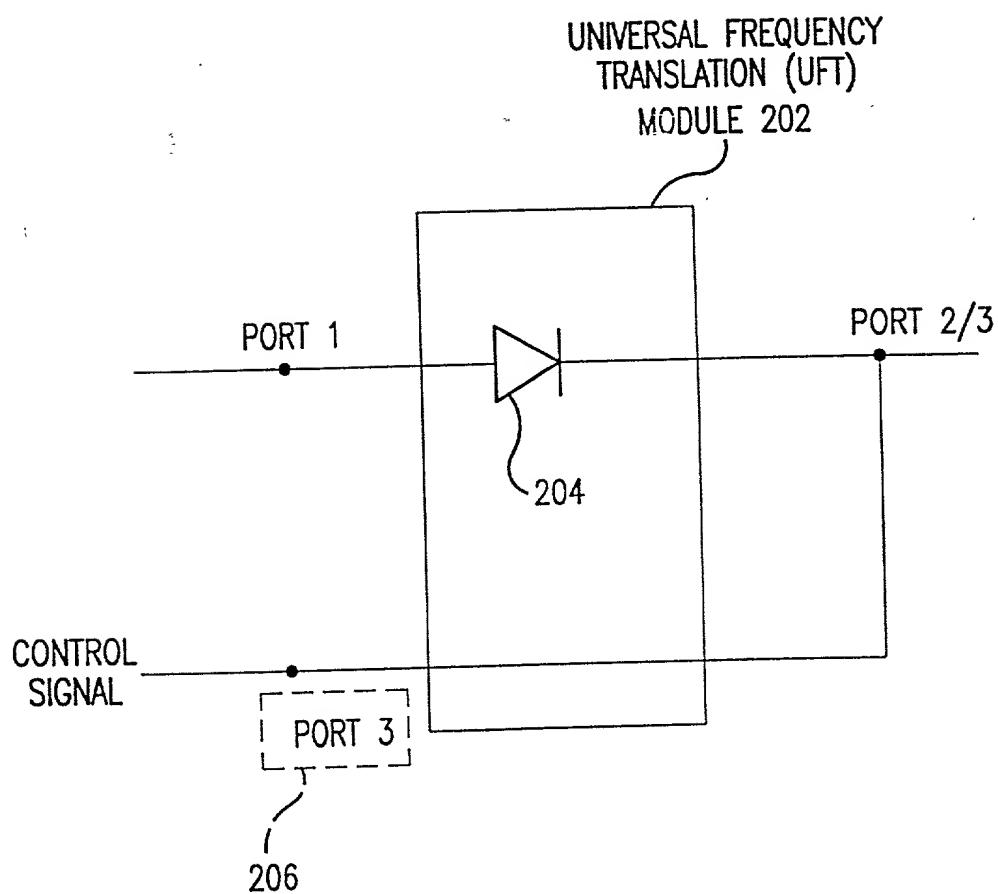
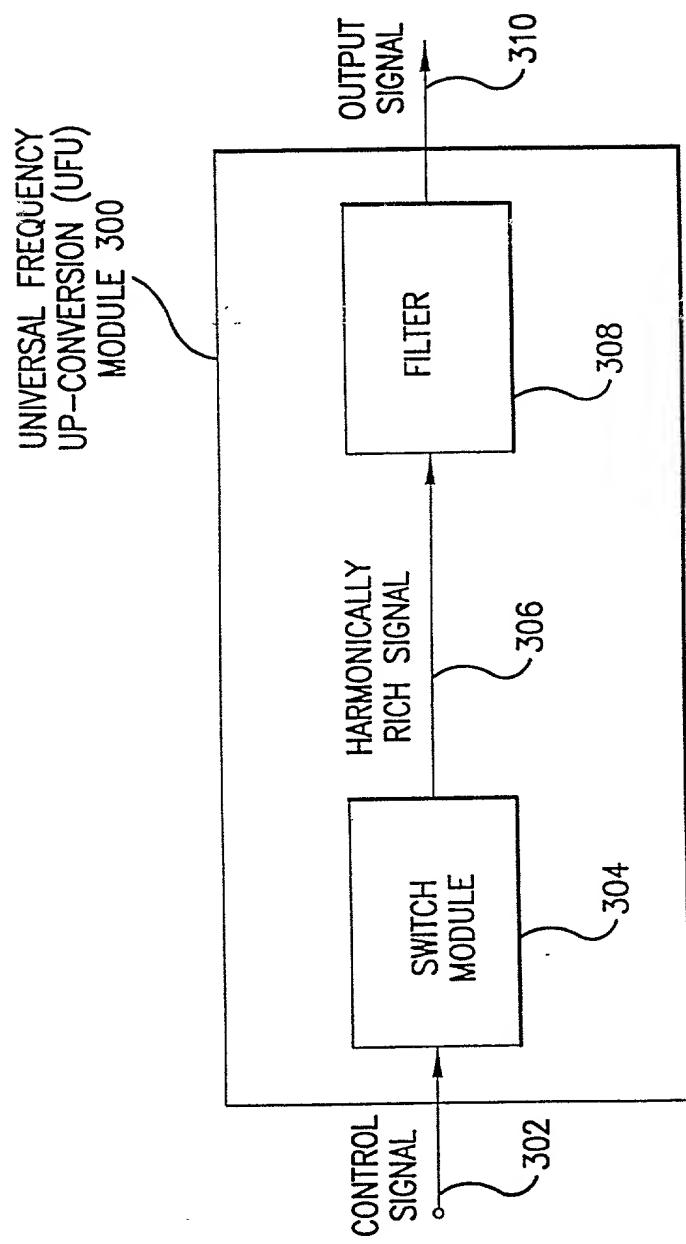


FIG.2

FIG. 3



W 0 0 E 0 0 n E E E Q 0 Z Z 6 0

UNIVERSAL FREQUENCY
UP-CONVERSION (UFC)
MODULE 401

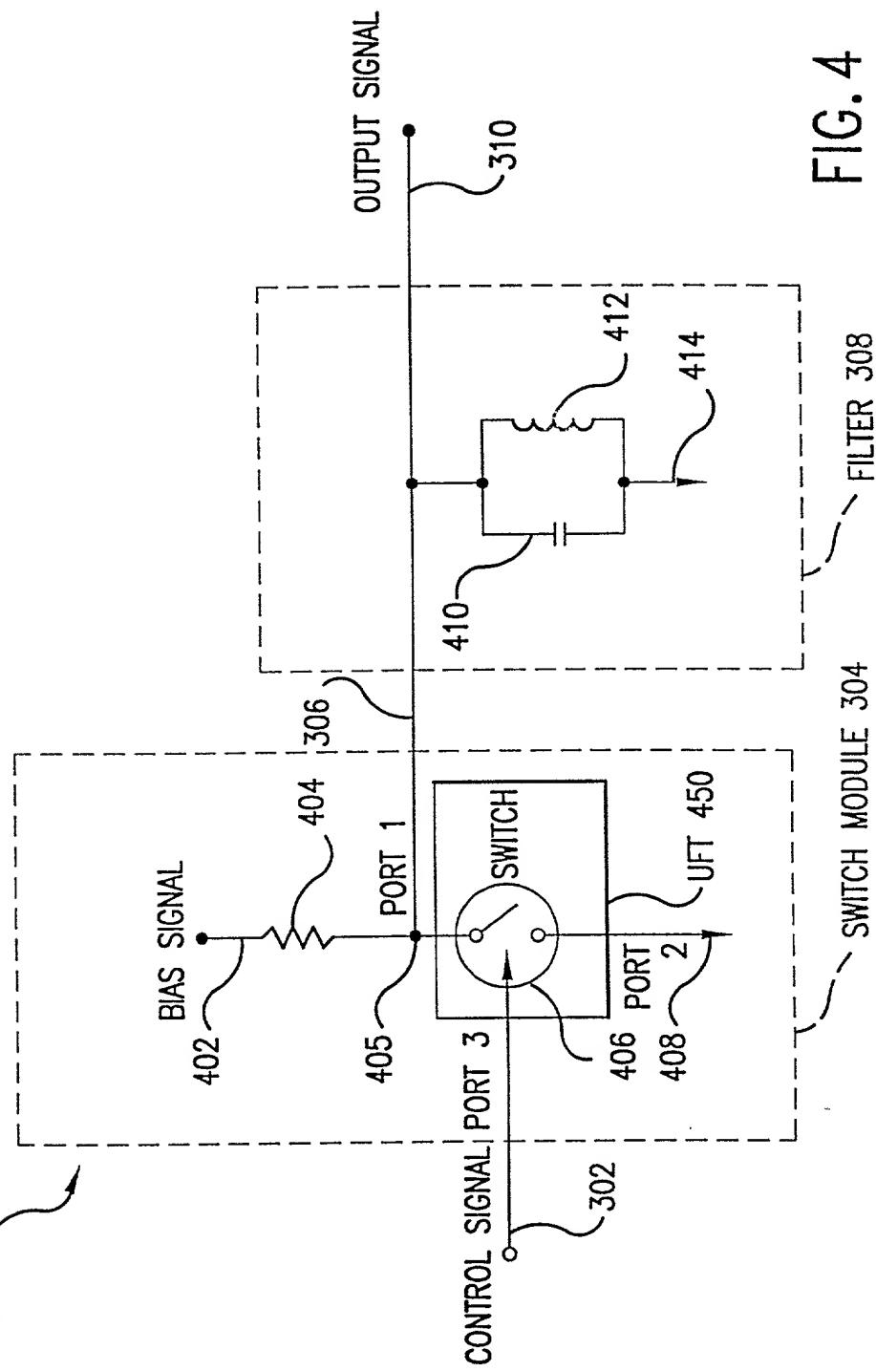


FIG. 4

UNIVERSAL FREQUENCY
UP-CONVERSION
(UFC) MODULE 590

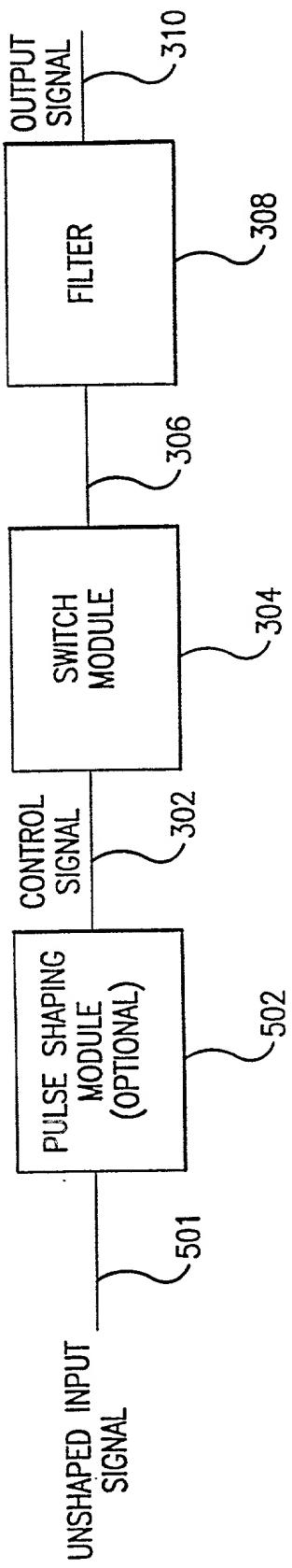


FIG. 5

FIGURE 6C

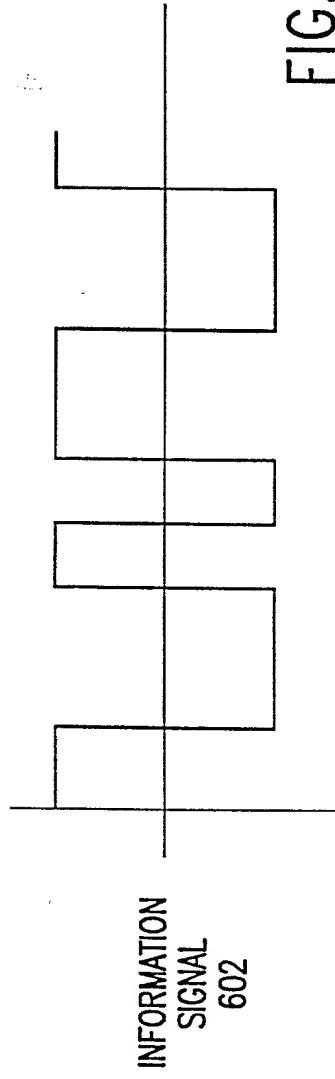


FIG. 6A

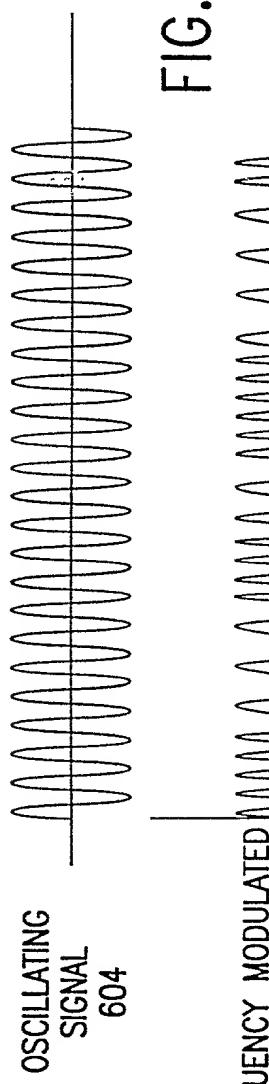


FIG. 6B

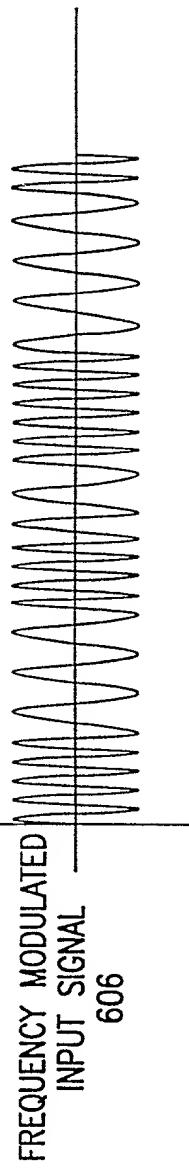


FIG. 6C

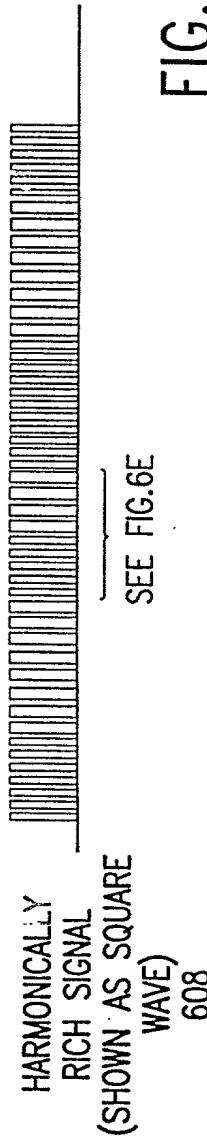


FIG. 6D

EXPANDED VIEW OF
HARMONICALLY RICH
SIGNAL 608

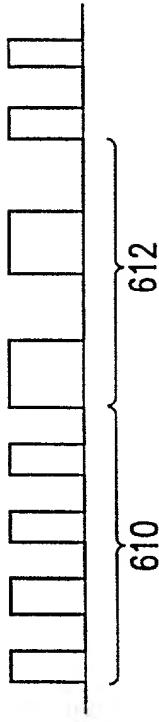


FIG. 6E

HARMONICS OF
SIGNAL 610
(SHOWN SEPARATELY)

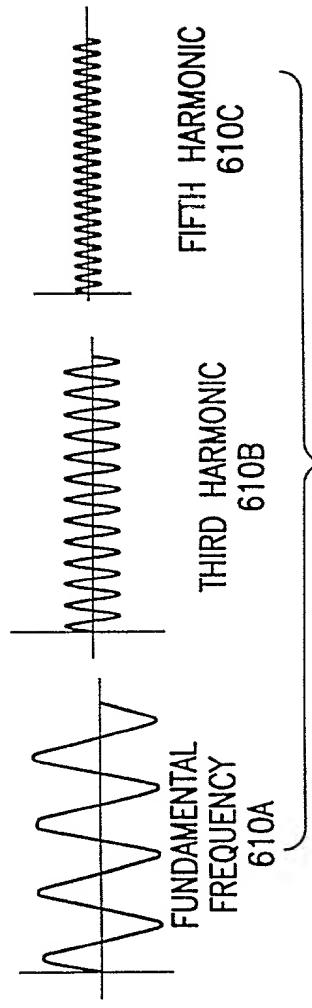


FIG. 6E

HARMONICS OF
SIGNAL 612
(SHOWN SEPARATELY)

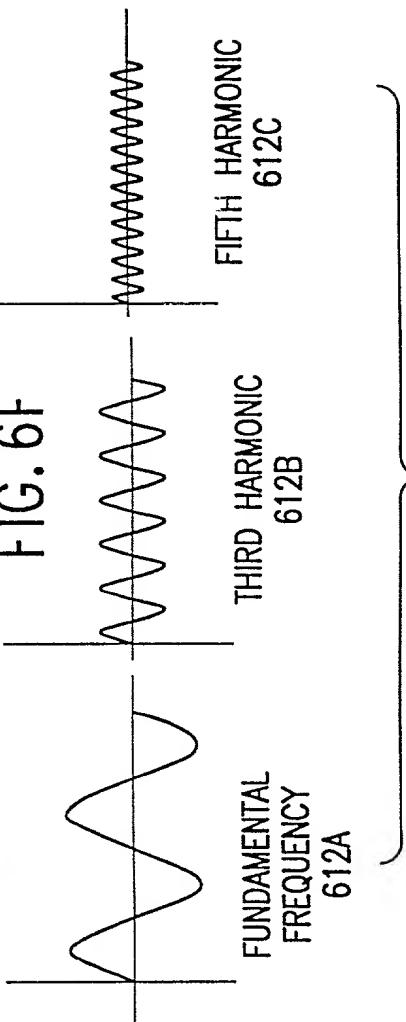


FIG. 6G

W G G G G G G G G G G

HARMONICS OF
SIGNALS 610 AND
612
(SHOWN SIMULTANEOUSLY
BUT NOT SUMMED)

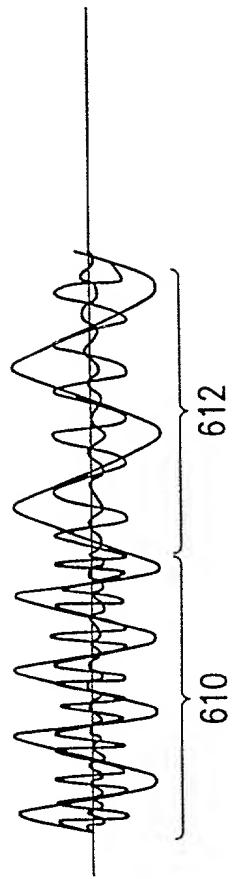


FIG. 6H

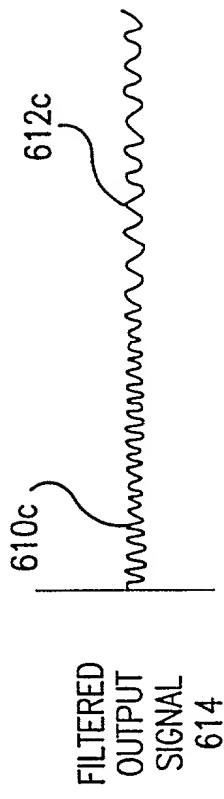


FIG. 6I

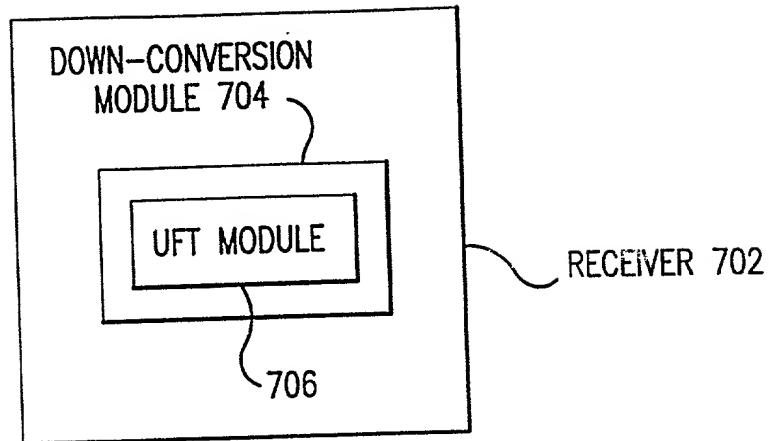


FIG. 7

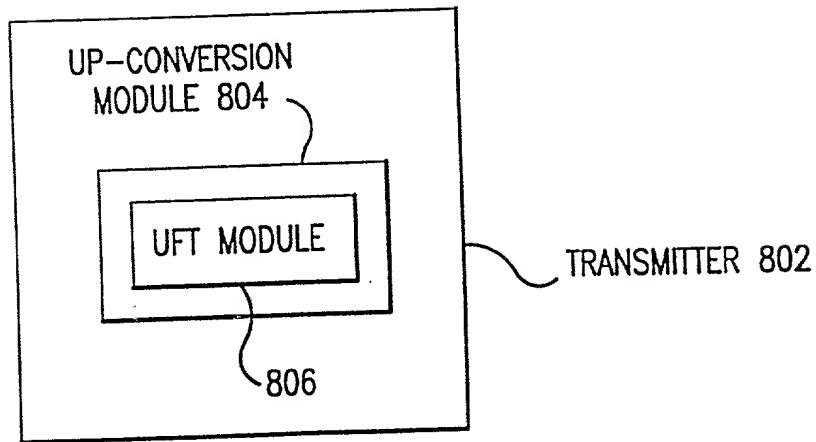


FIG. 8

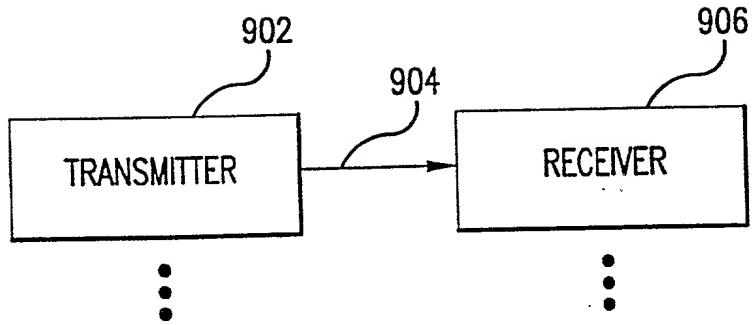


FIG. 9

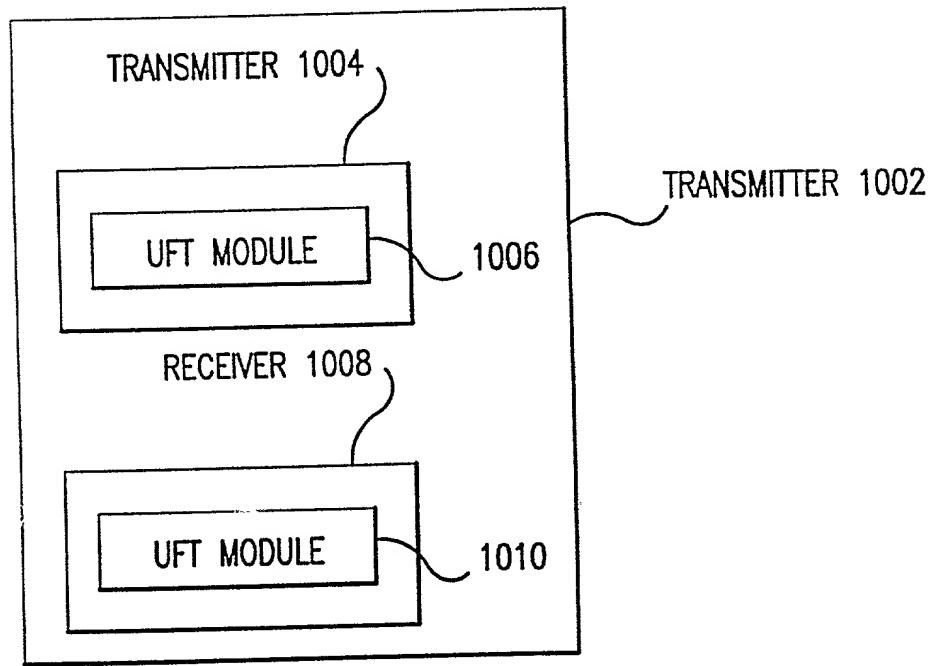


FIG. 10

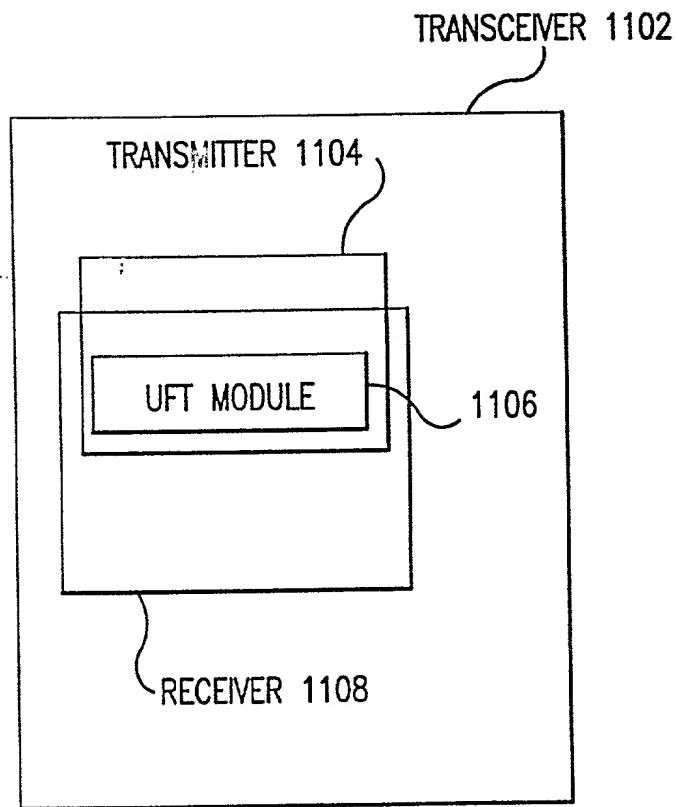


FIG. 11

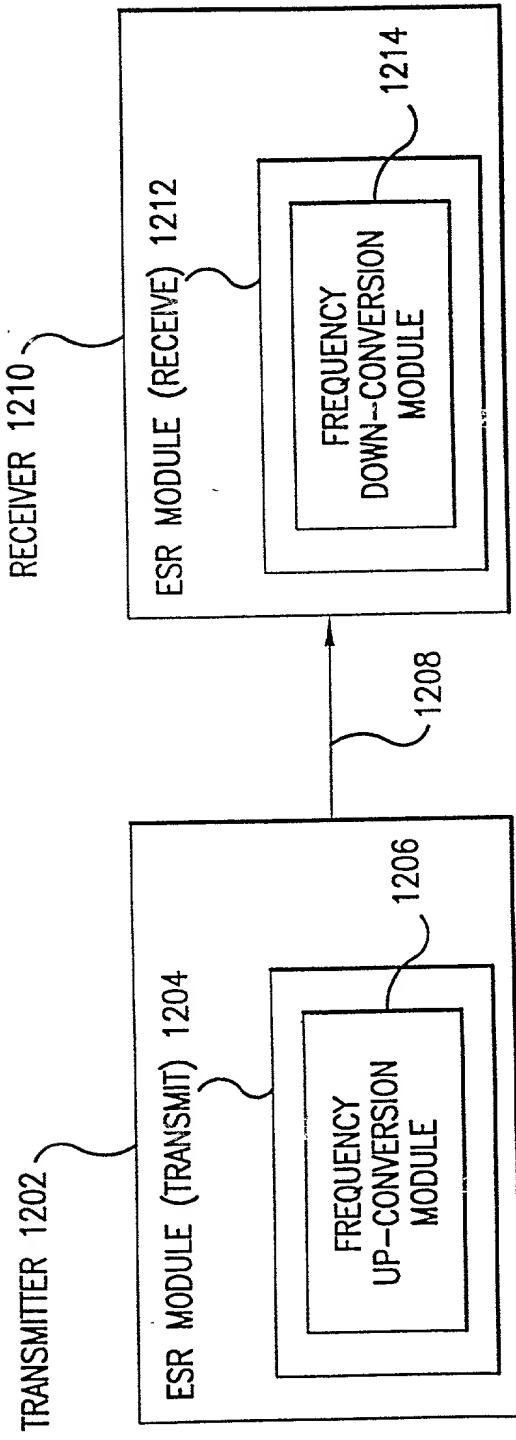


FIG. 12

UNIFIED DOWN-CONVERTING
AND FILTERING (UDF) MODULE 1302

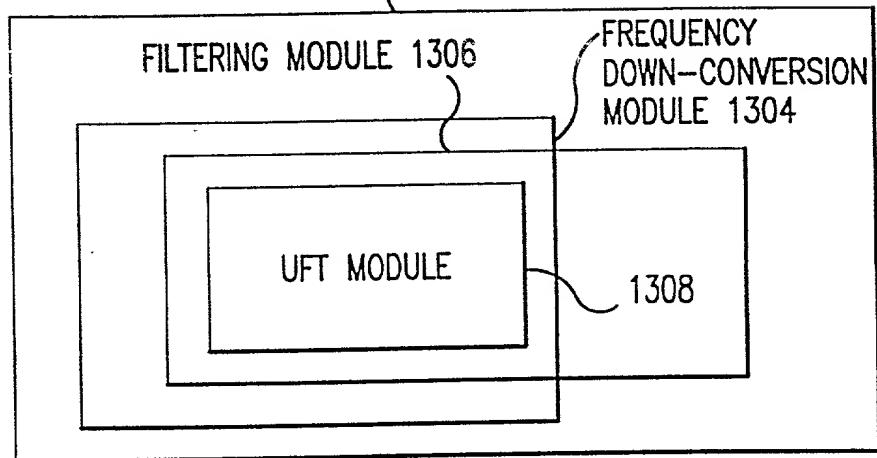


FIG. 13

RECEIVER 1402

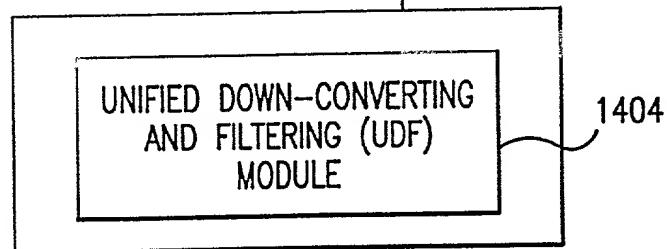
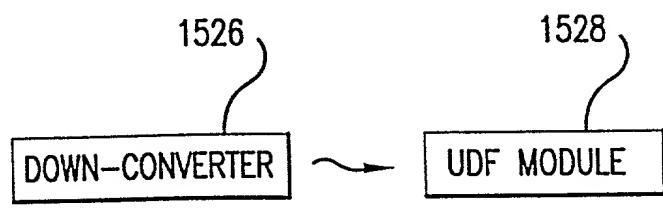
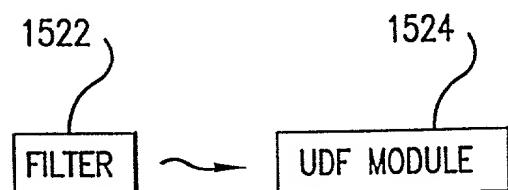
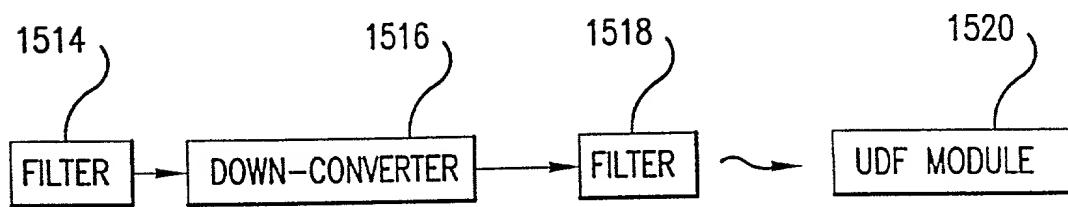
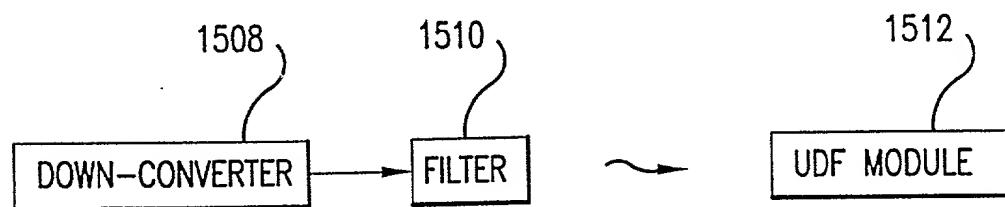
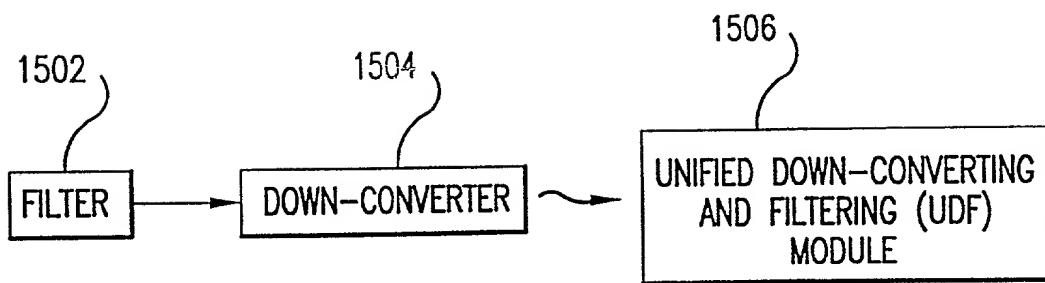


FIG. 14



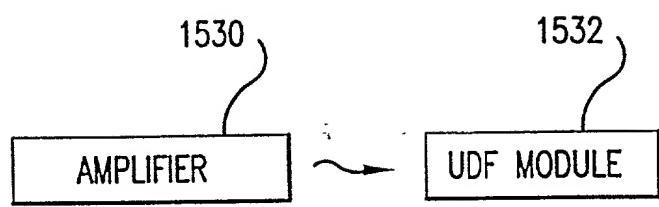


FIG. 15F

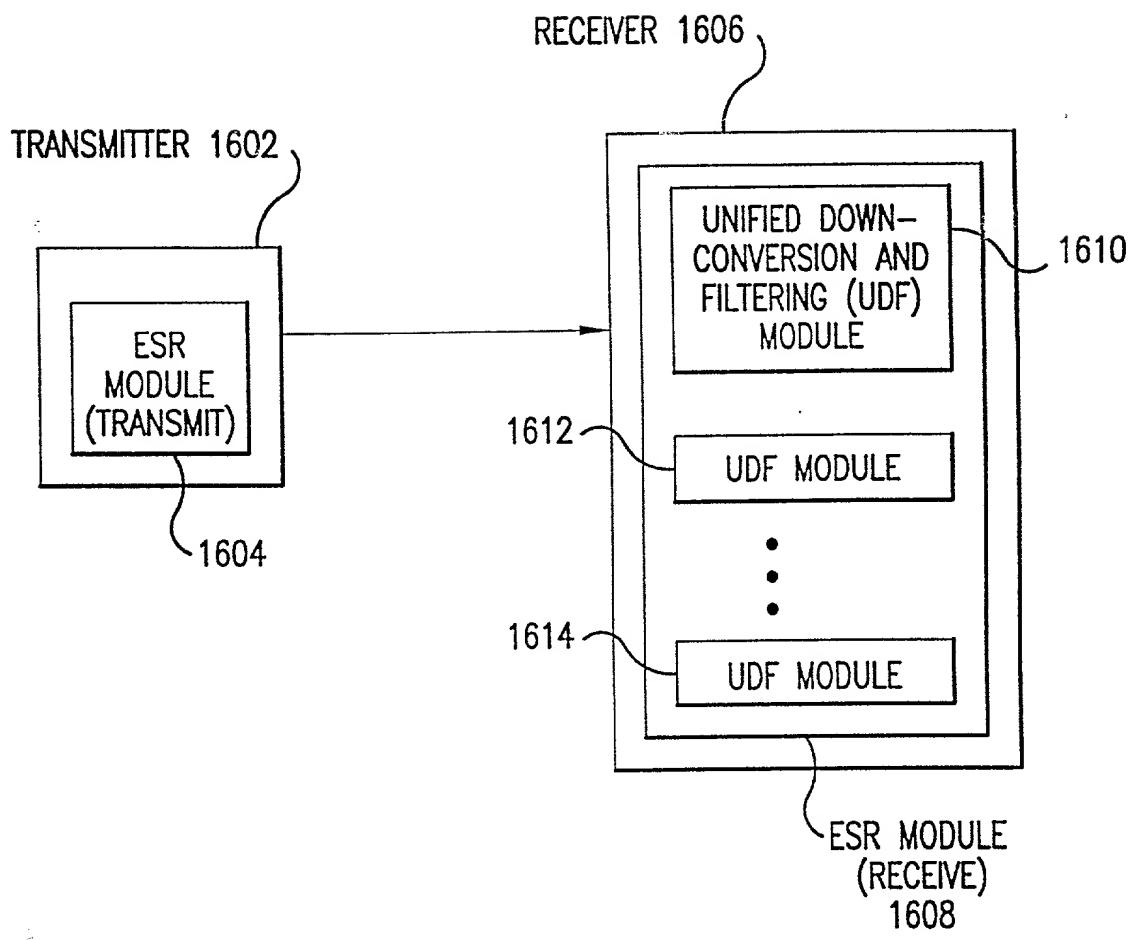
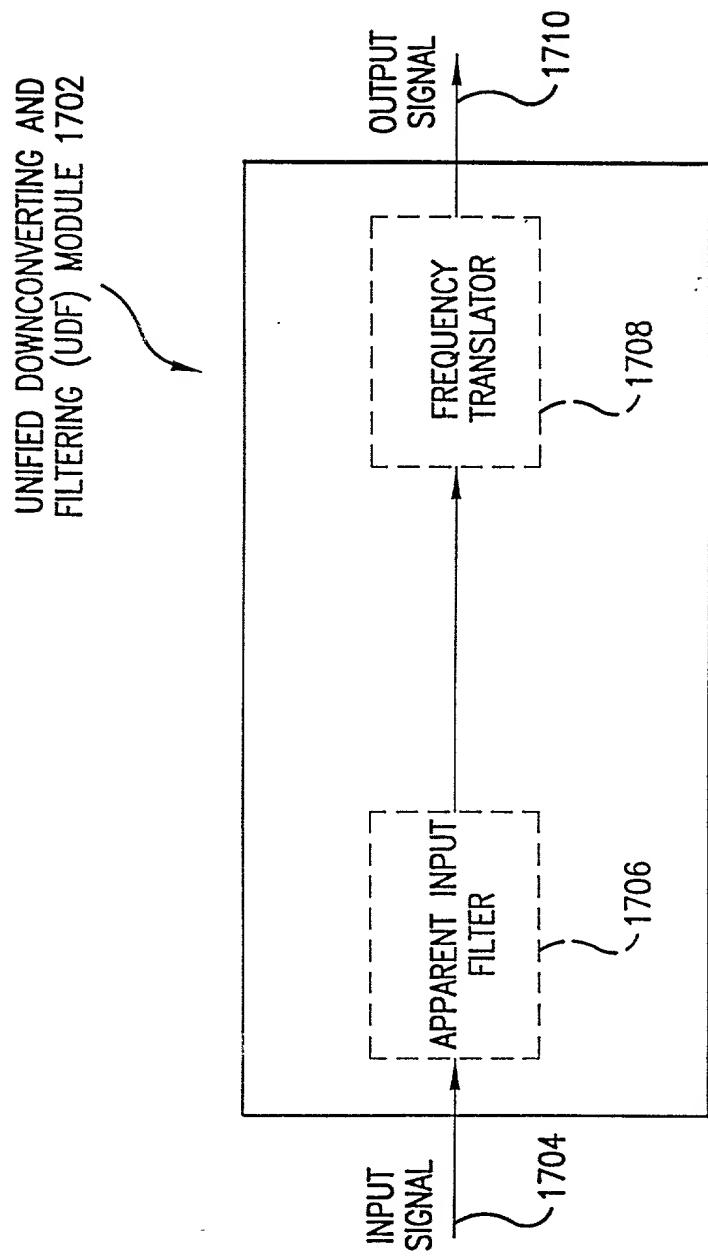


FIG. 16

FIG. 17



1802



TIME NODE	$t-1$ (RISING EDGE OF ϕ_1)	$t-1$ (RISING EDGE OF ϕ_2)	t (RISING EDGE OF ϕ_1)	t (RISING EDGE OF ϕ_2)	$t+1$ (RISING EDGE OF ϕ_1)
1902	V_{t-1} <u>1804</u>	V_{t-1} <u>1808</u>	V_t <u>1816</u>	V_t <u>1826</u>	V_{t+1} <u>1838</u>
1904	-	V_{t-1} <u>1810</u>	V_{t-1} <u>1818</u>	V_t <u>1828</u>	V_t <u>1840</u>
1906	V_{t-1} <u>1806</u>	V_{t-1} <u>1812</u>	V_t <u>1820</u>	V_t <u>1830</u>	V_{t+1} <u>1842</u>
1908	-	V_{t-1} <u>1814</u>	V_{t-1} <u>1822</u>	V_t <u>1832</u>	V_t <u>1844</u>
1910	-	V_{t-1} <u>1807</u>	V_{t-1} <u>1824</u>	V_{t-1} <u>1834</u>	V_t <u>1846</u>
1912	-	-	V_{t-1} <u>1815</u>	V_{t-1} <u>1836</u>	V_{t-1} <u>1848</u>
1918	-	-	-	-	$V_t -$ $\frac{1850}{0.1*V_{t-1} - 0.8*V_{t-1}}$

FIG. 18

FIGURE 19

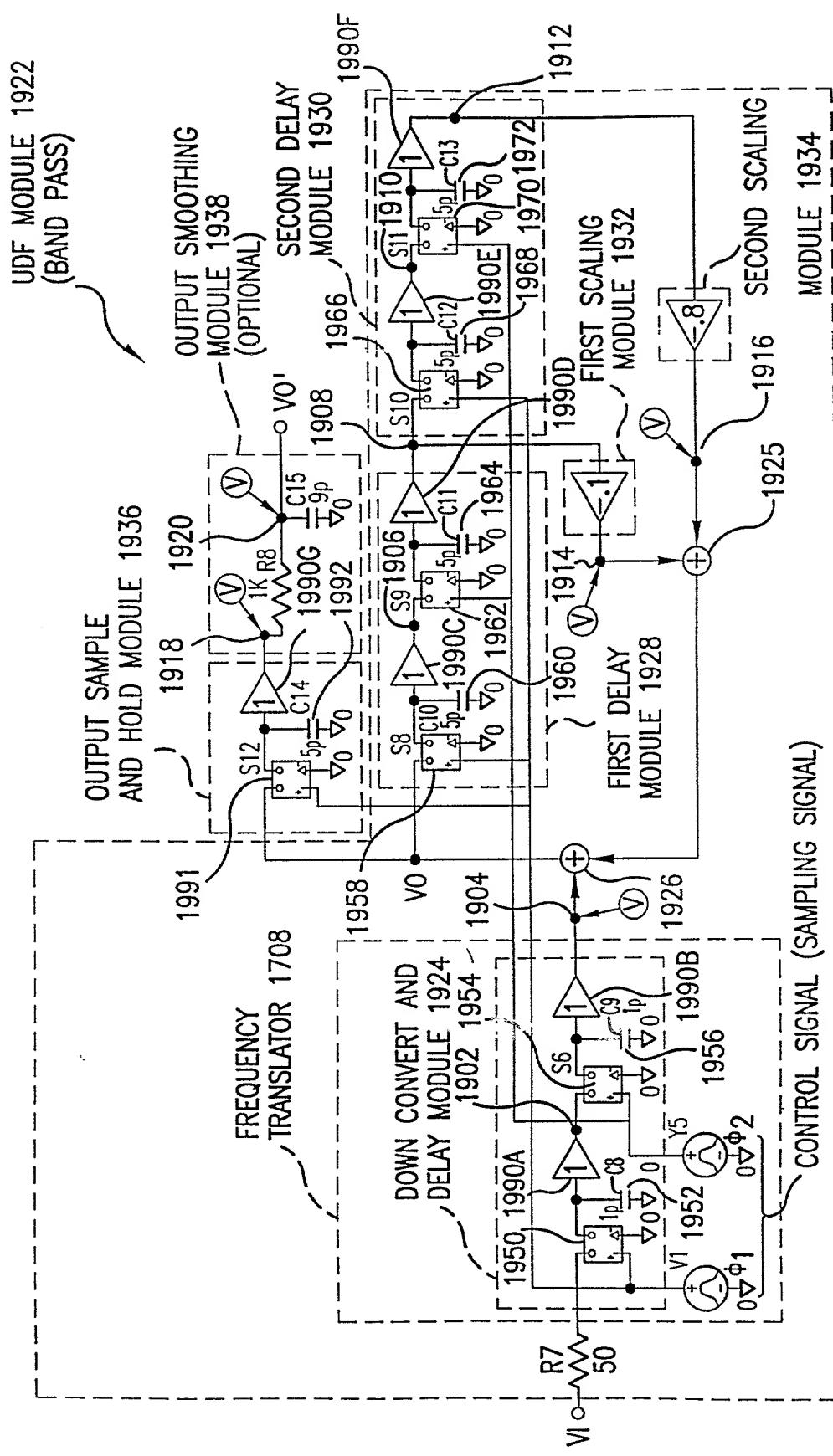


FIG. 19

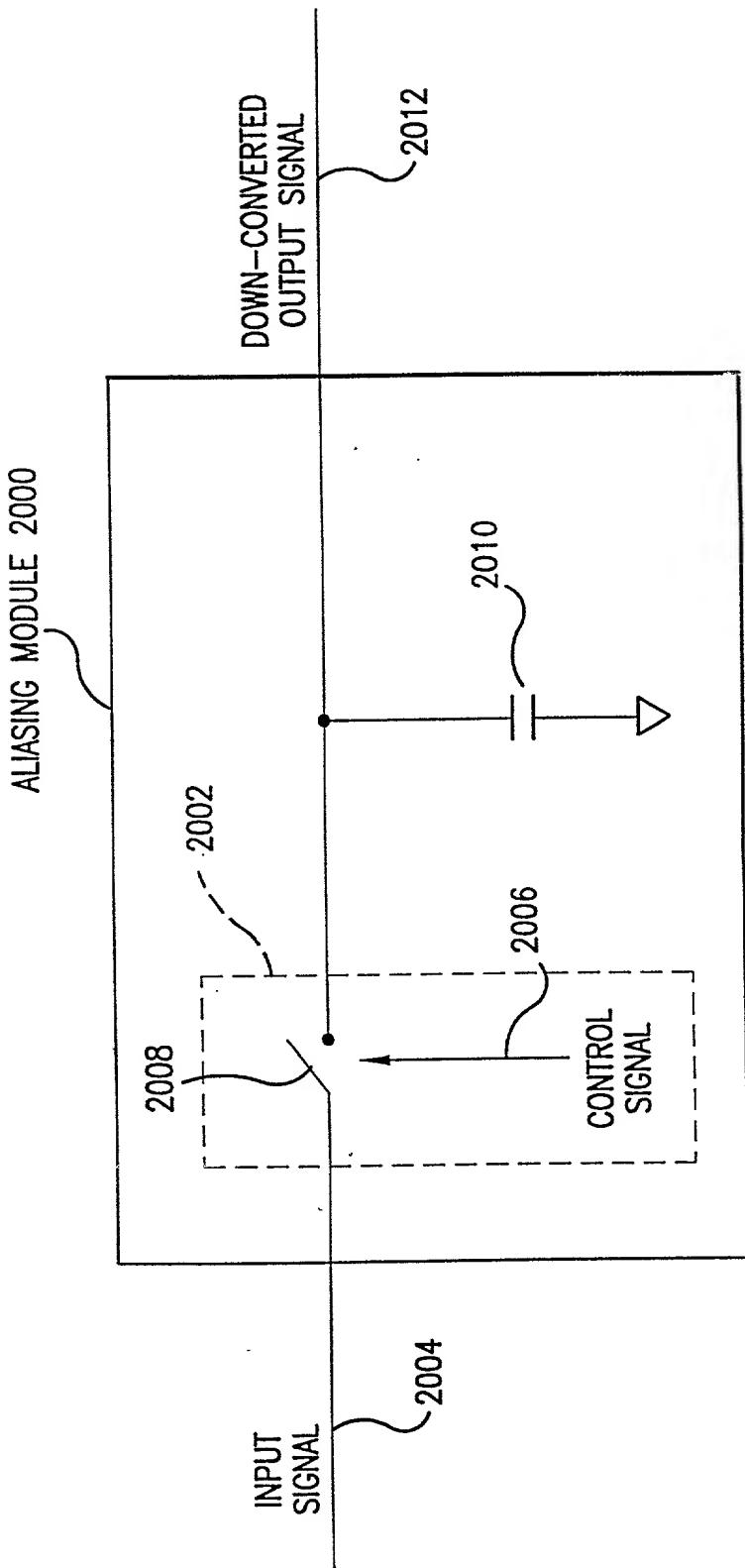


FIG. 20A

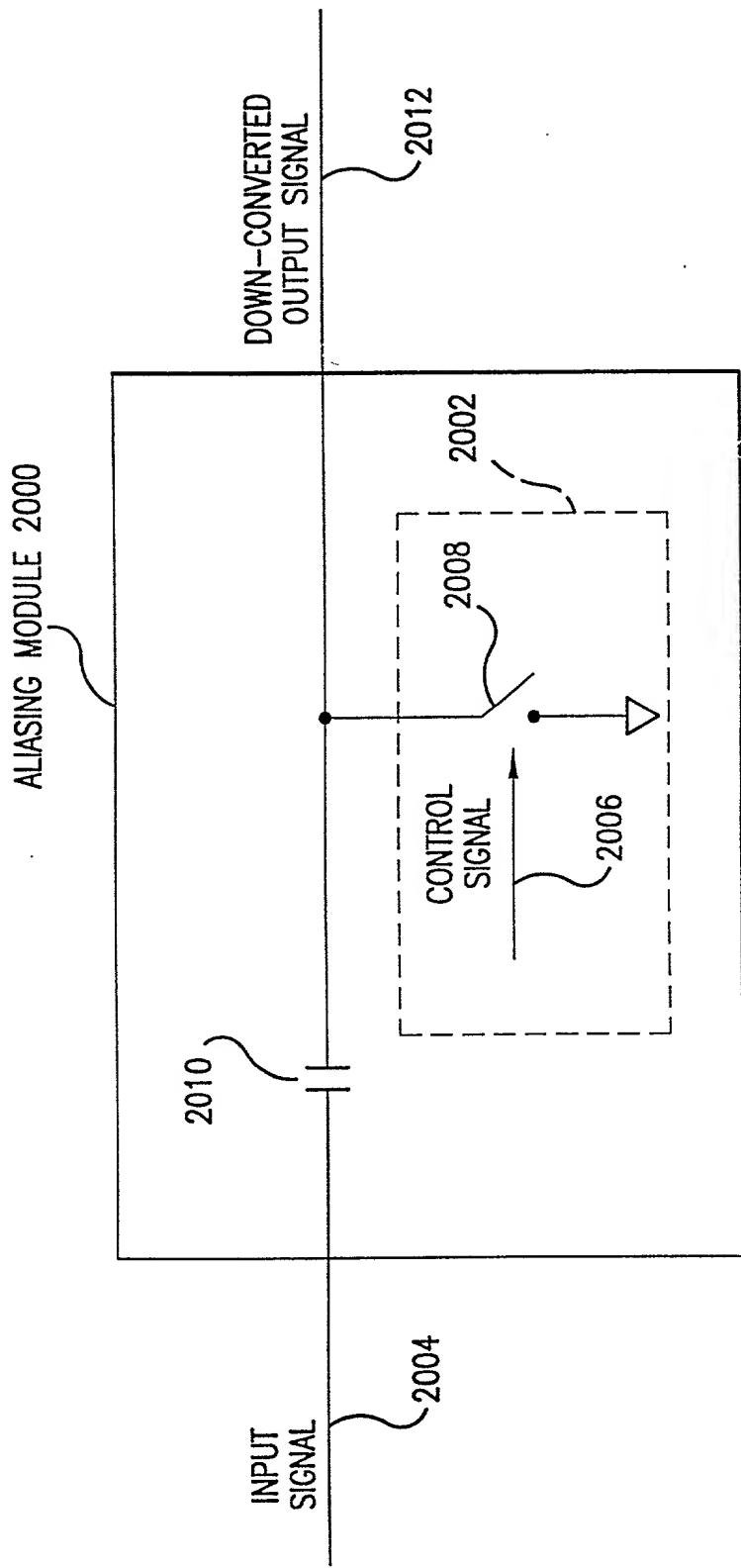


FIG. 20A-1

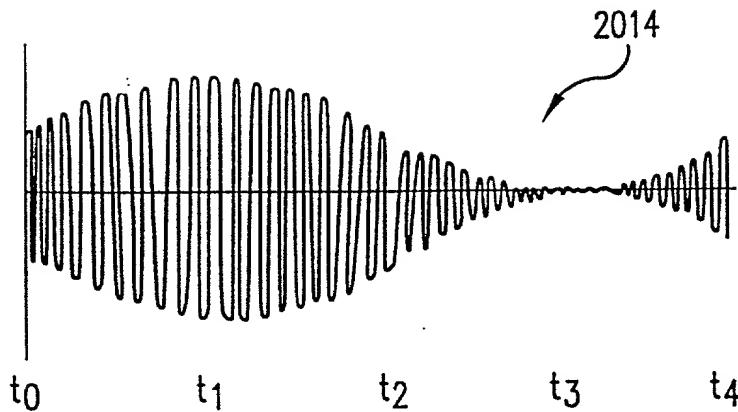


FIG. 20B

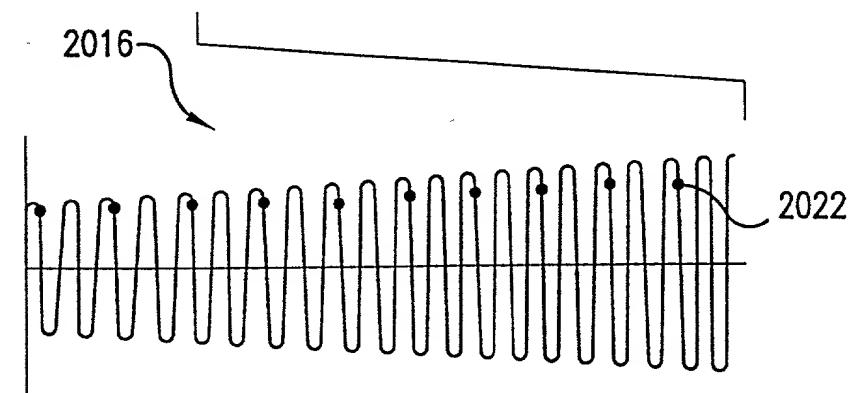


FIG. 20C



FIG. 20D

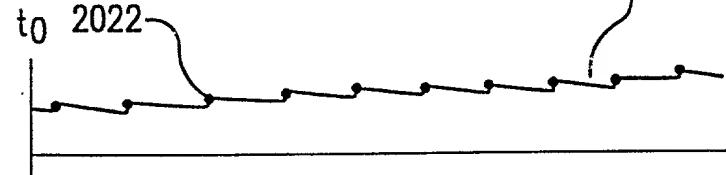


FIG. 20E

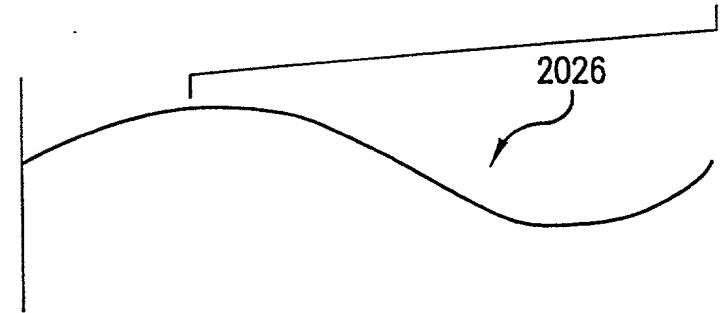


FIG. 20F

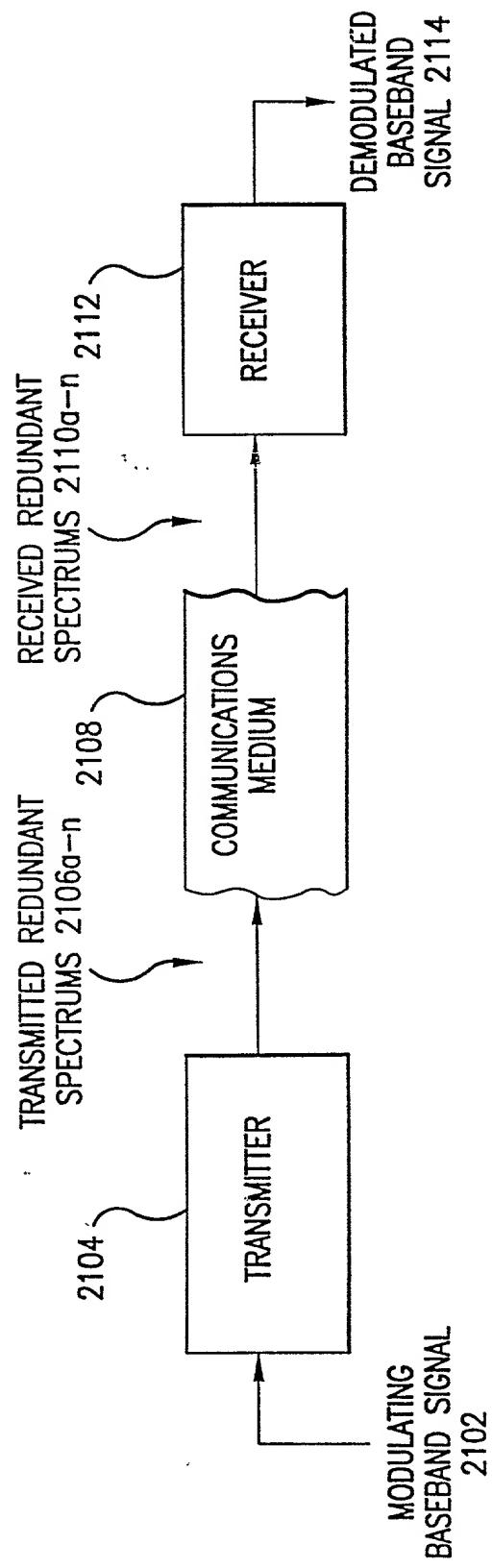


FIG. 21

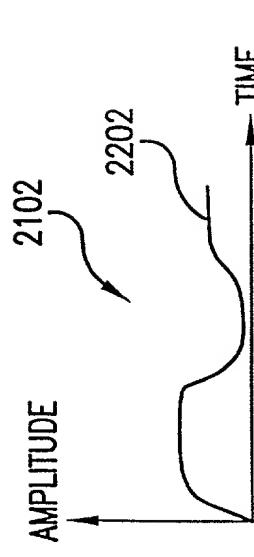


FIG. 22A

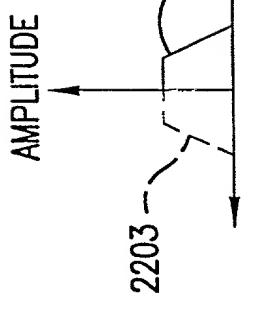


FIG. 22B

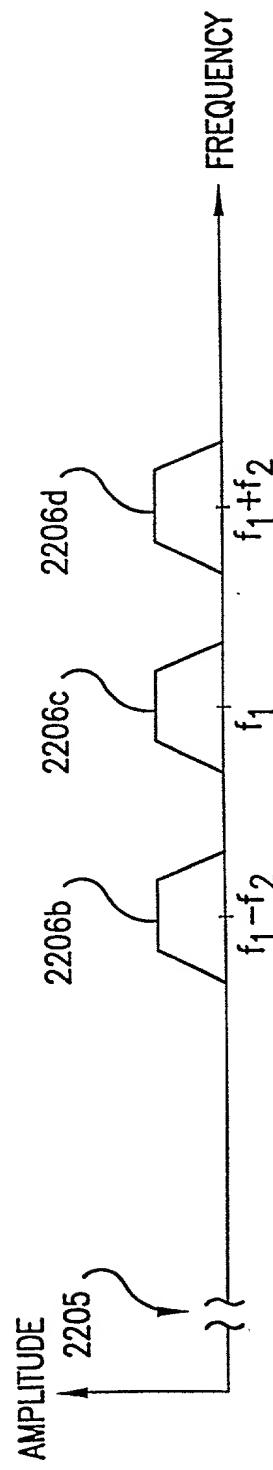


FIG. 22C

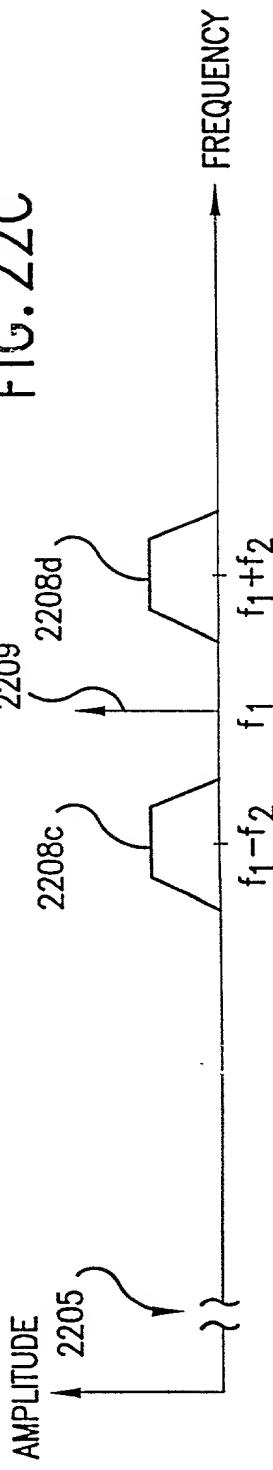


FIG. 22D

2205 2210b 2210c 2211 2210d

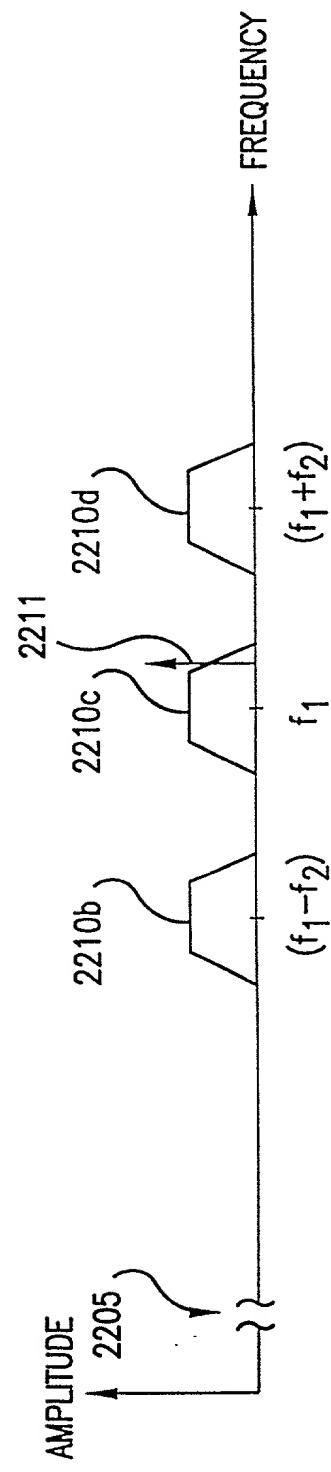


FIG. 22E

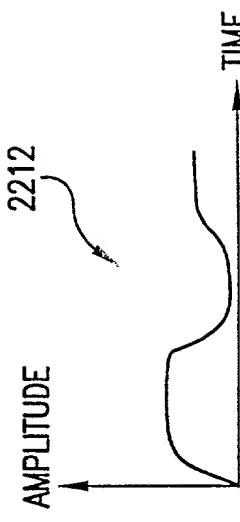
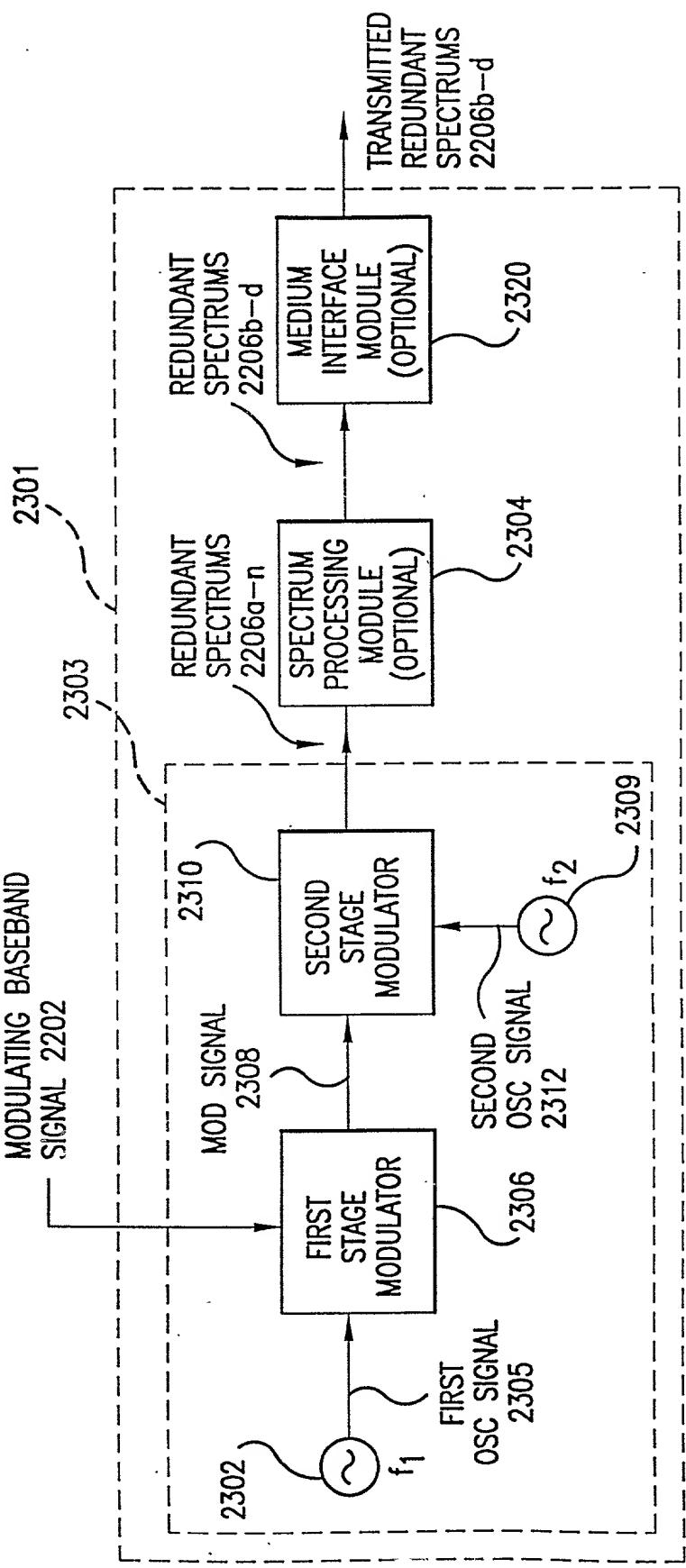


FIG. 22F

FIG. 23A



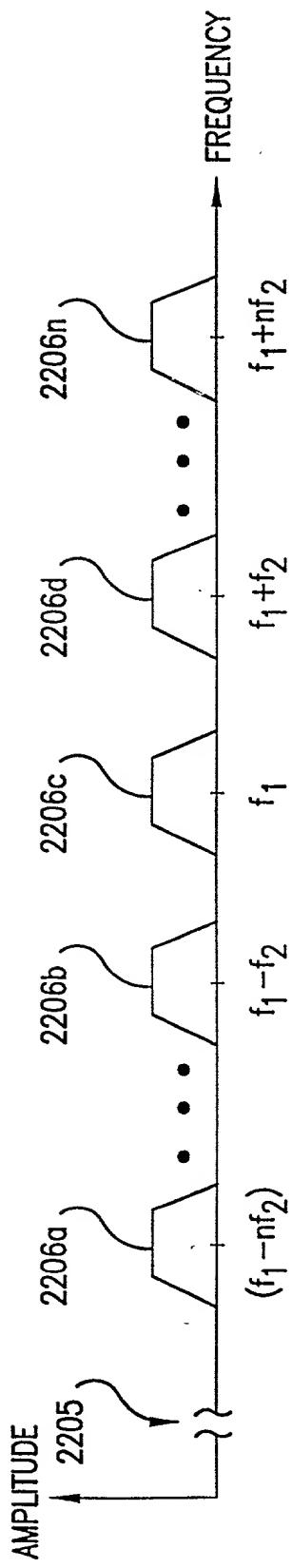


FIG. 23B

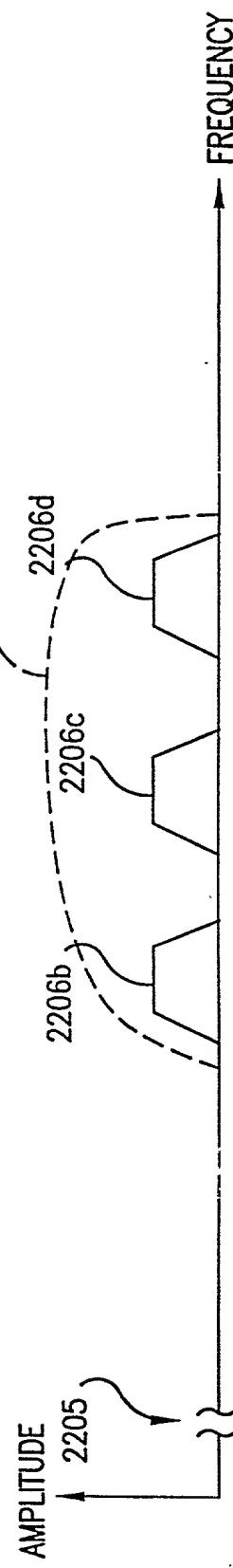


FIG. 23C

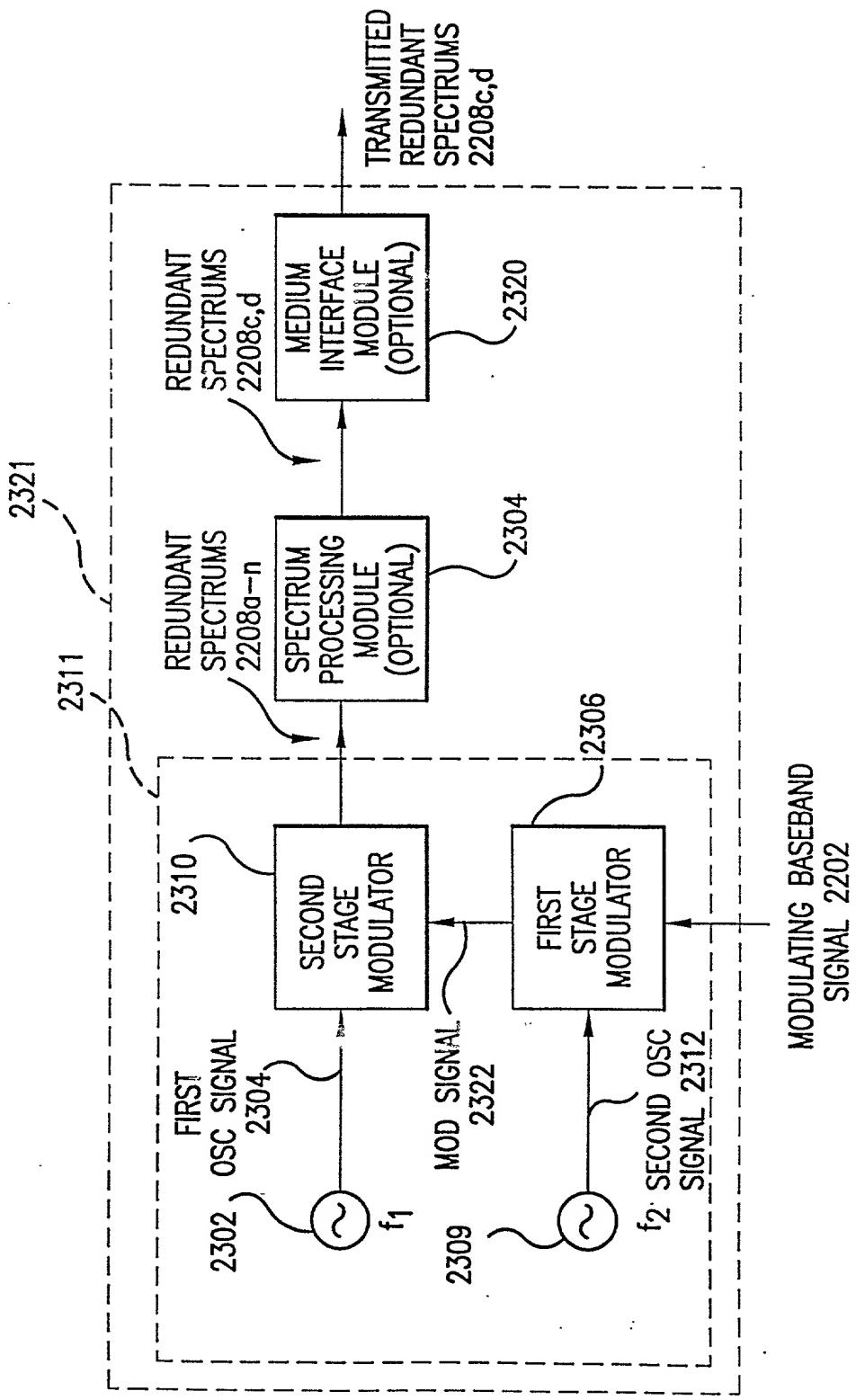


FIG. 23D

FIGURE 23D "SOUND IN THE AIR"

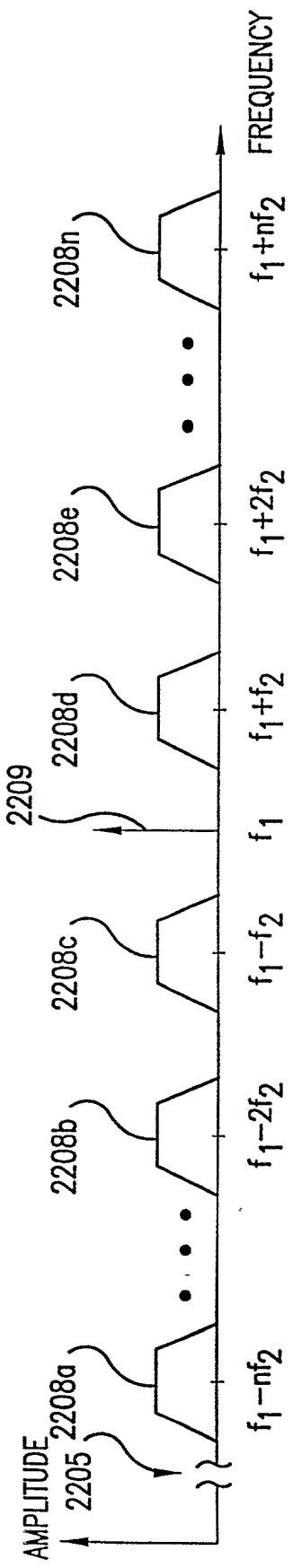


FIG. 23E

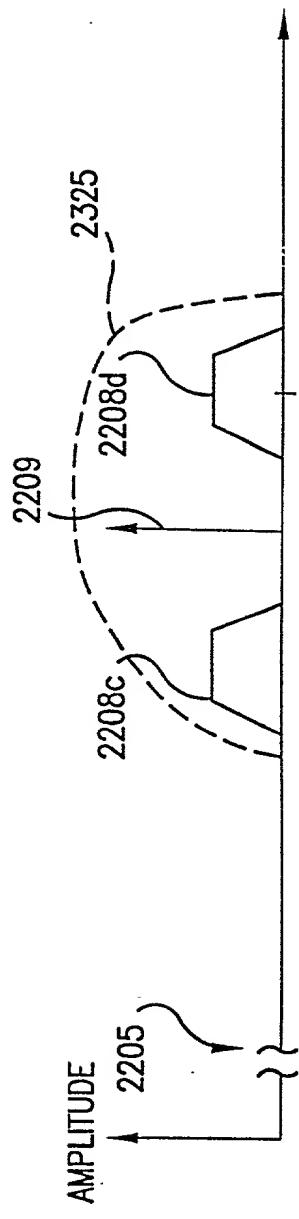


FIG. 23F

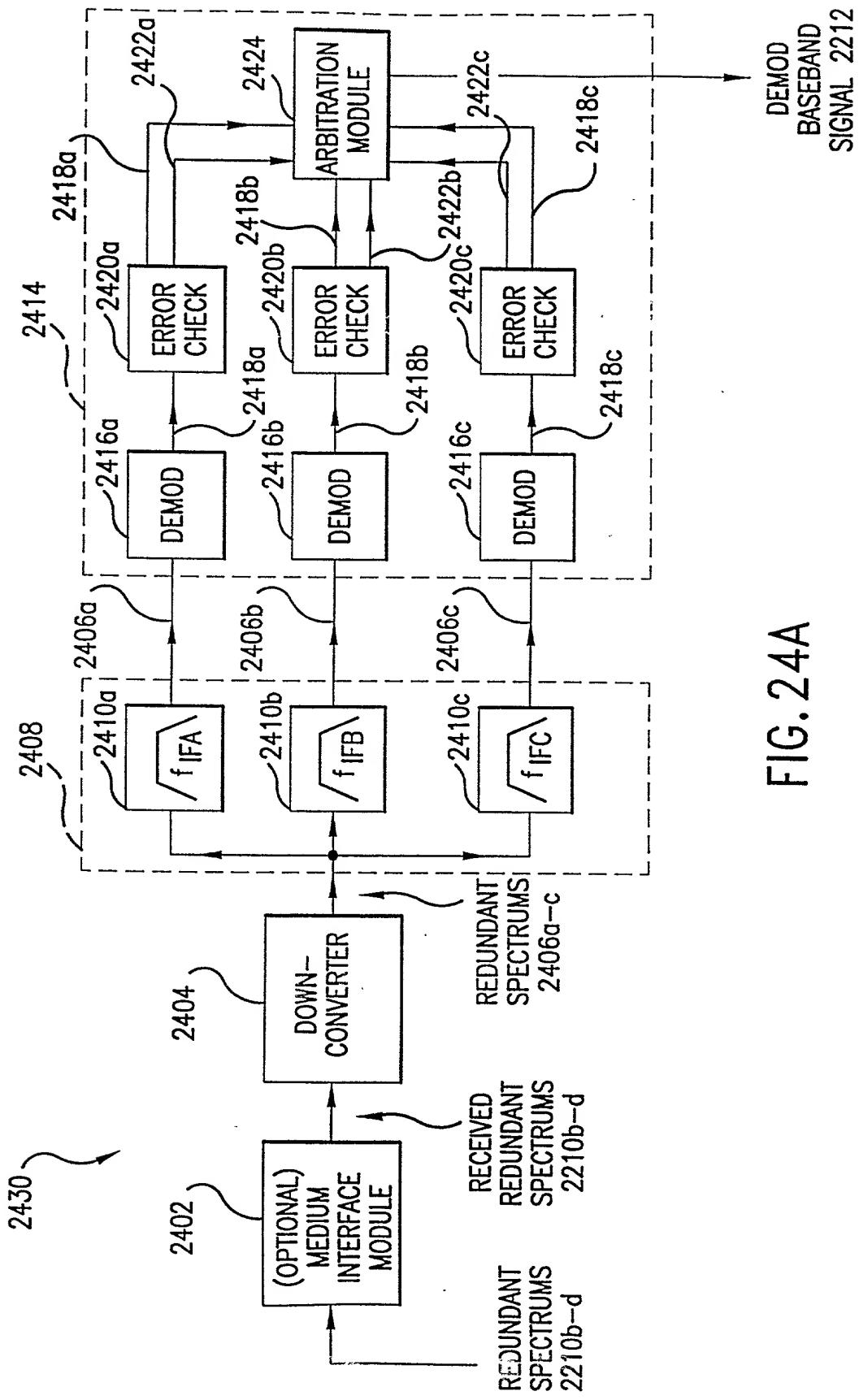


FIG. 24A

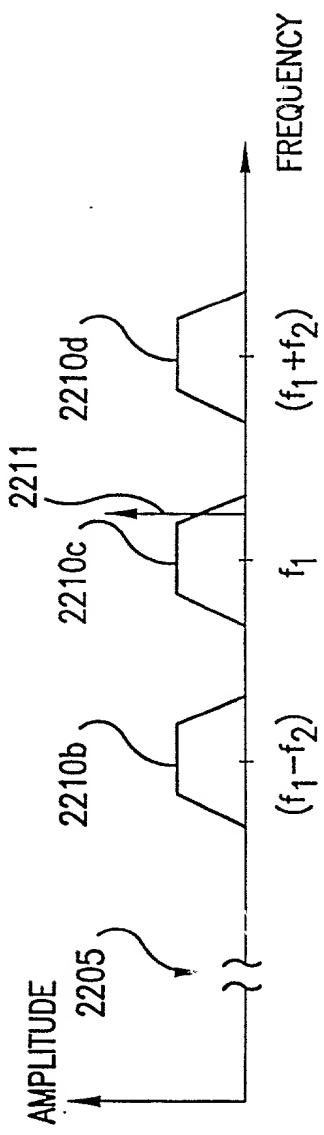


FIG. 24B

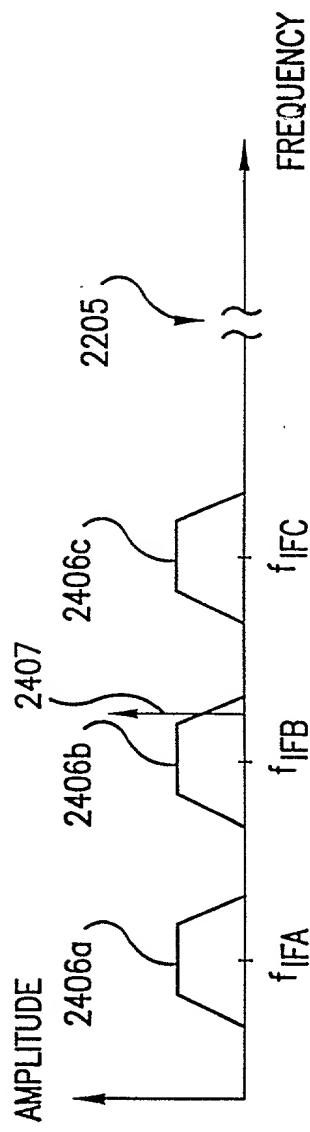
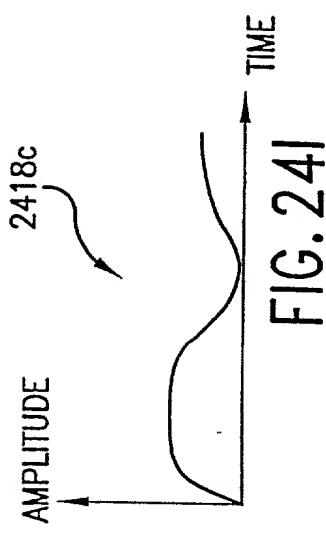
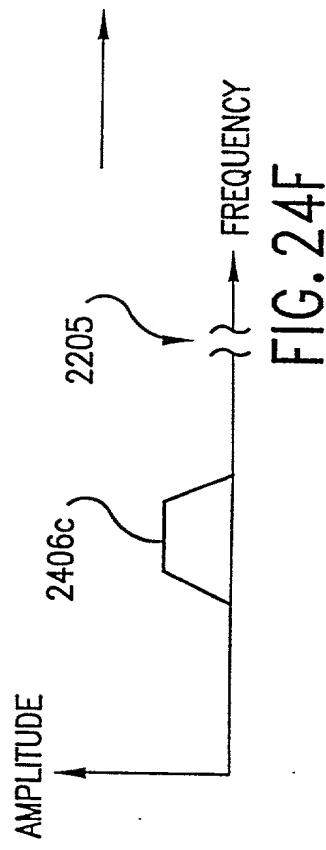
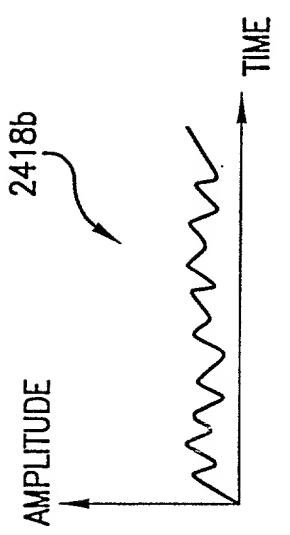
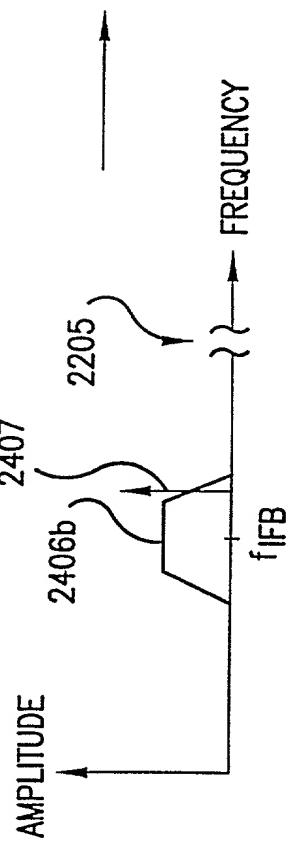
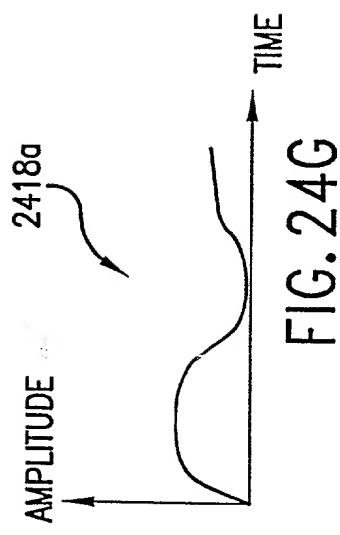
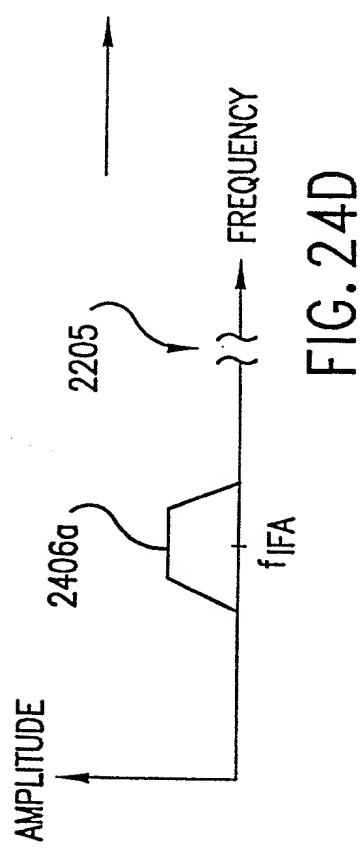


FIG. 24C



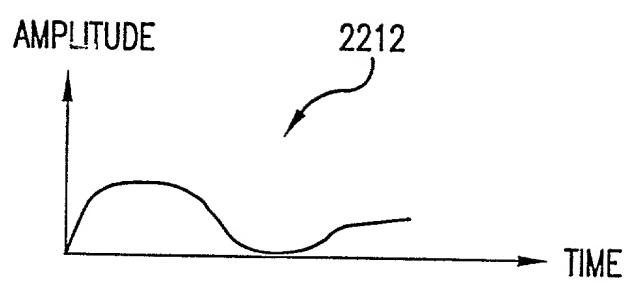


FIG. 24J

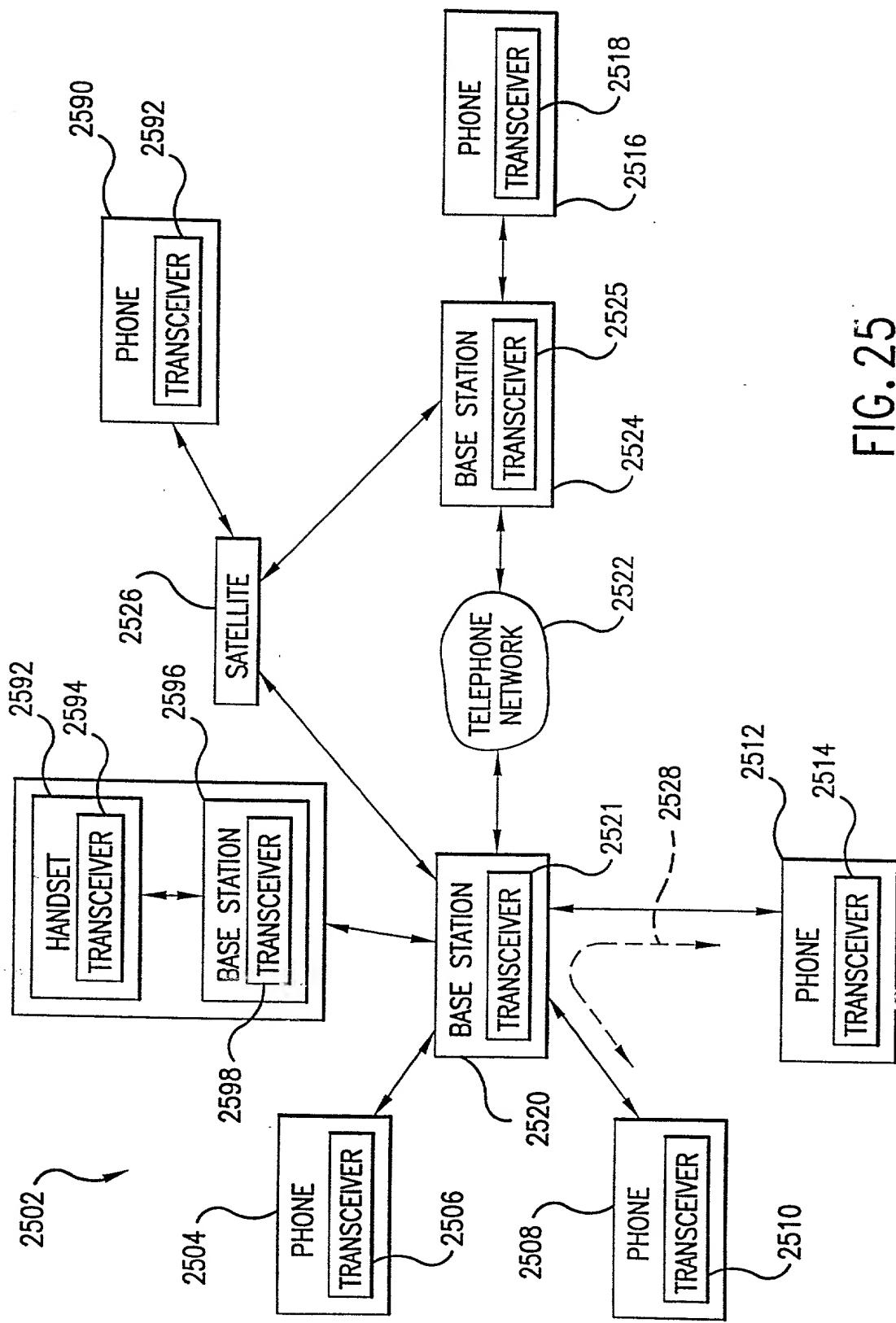


FIG. 25

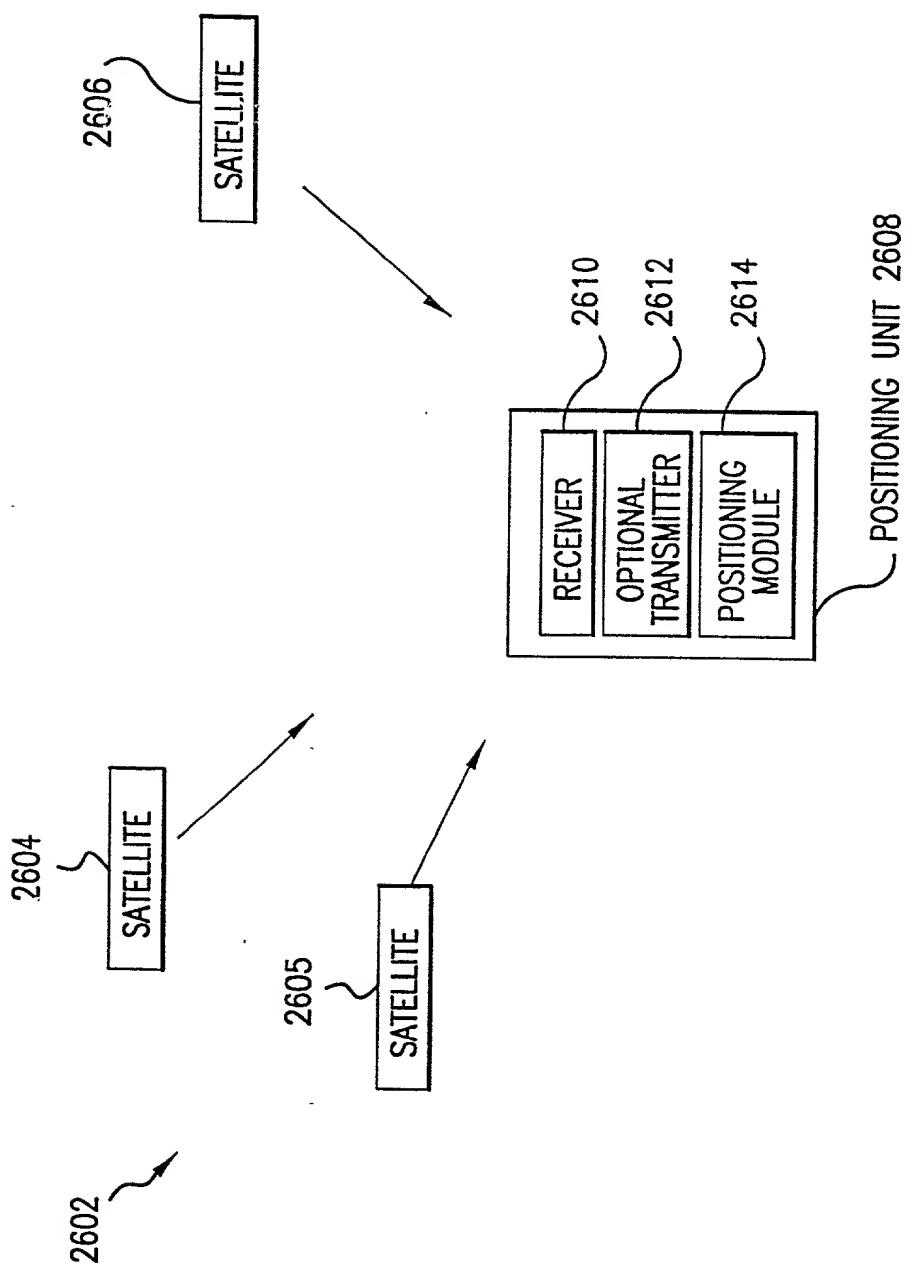


FIG. 26

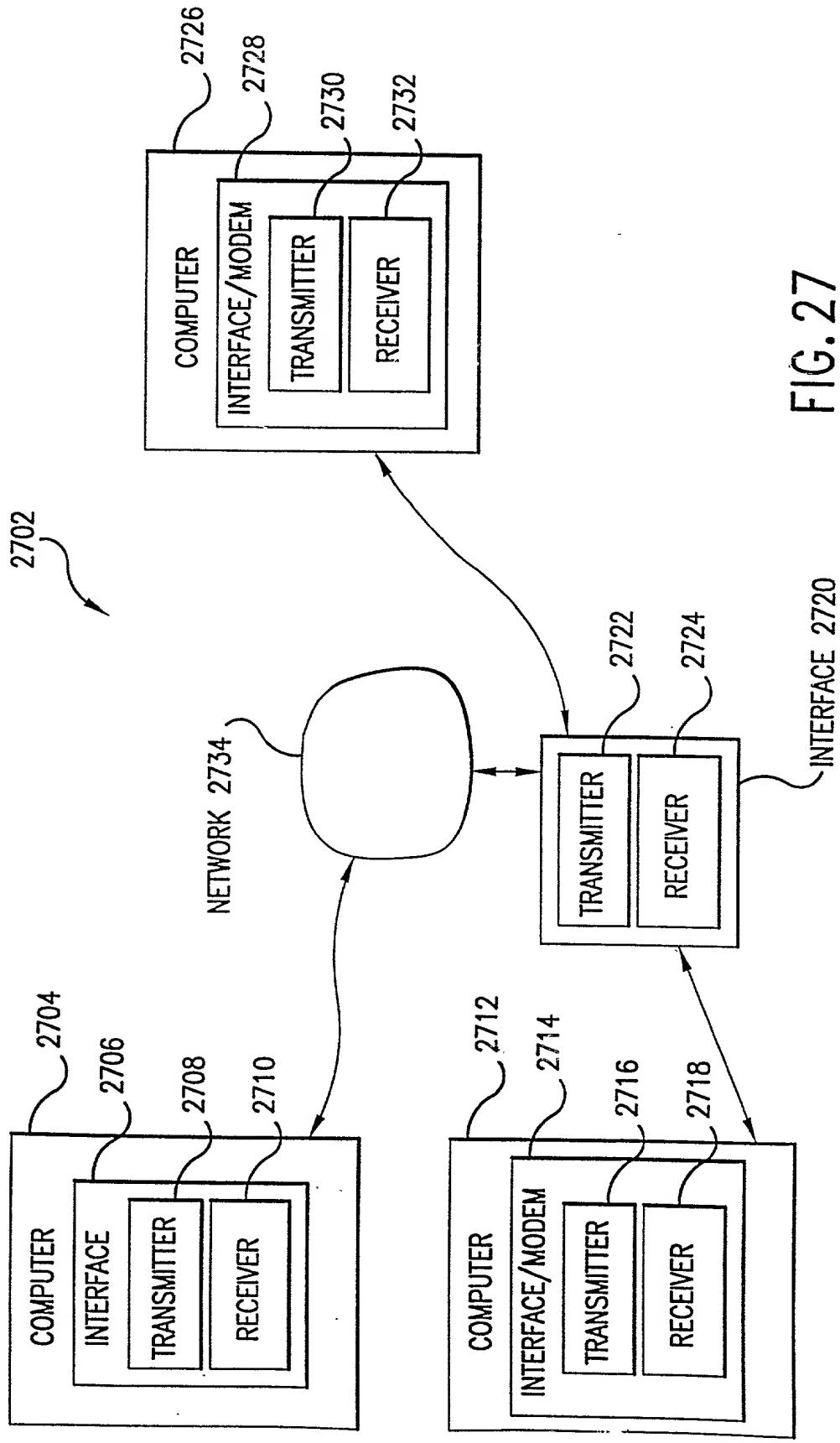


FIG. 27

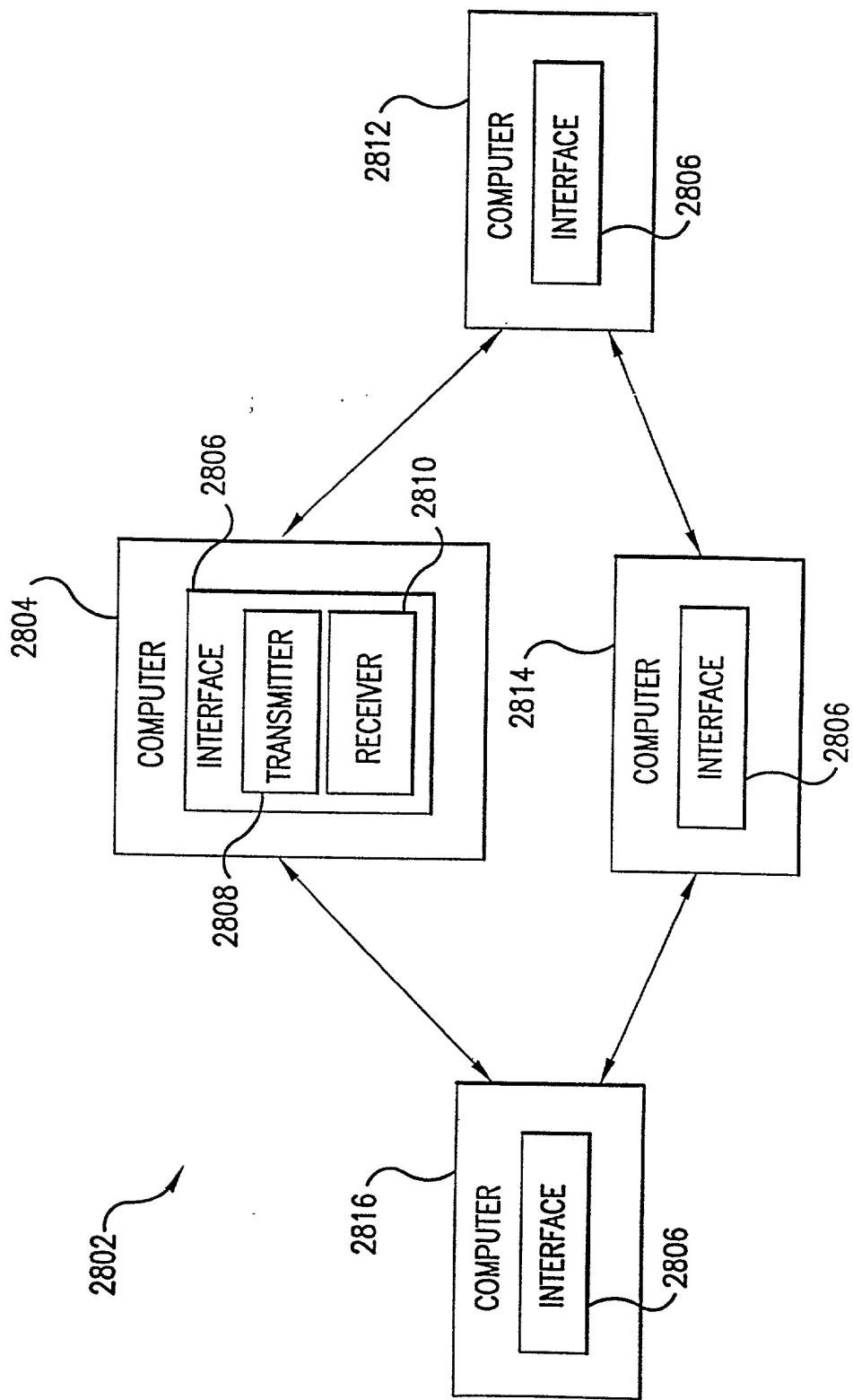


FIG. 28

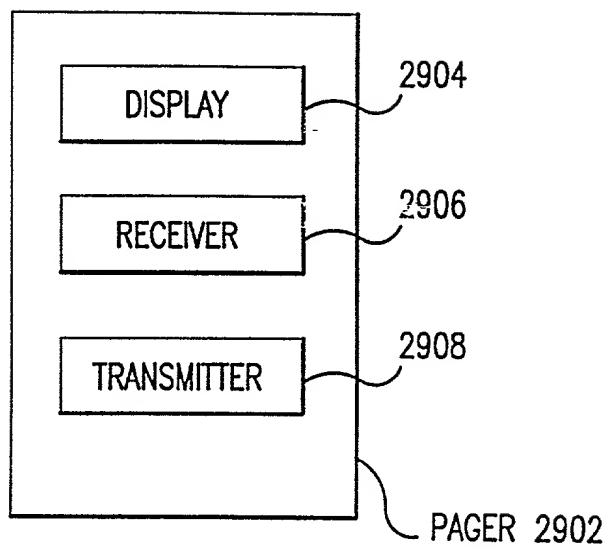


FIG. 29

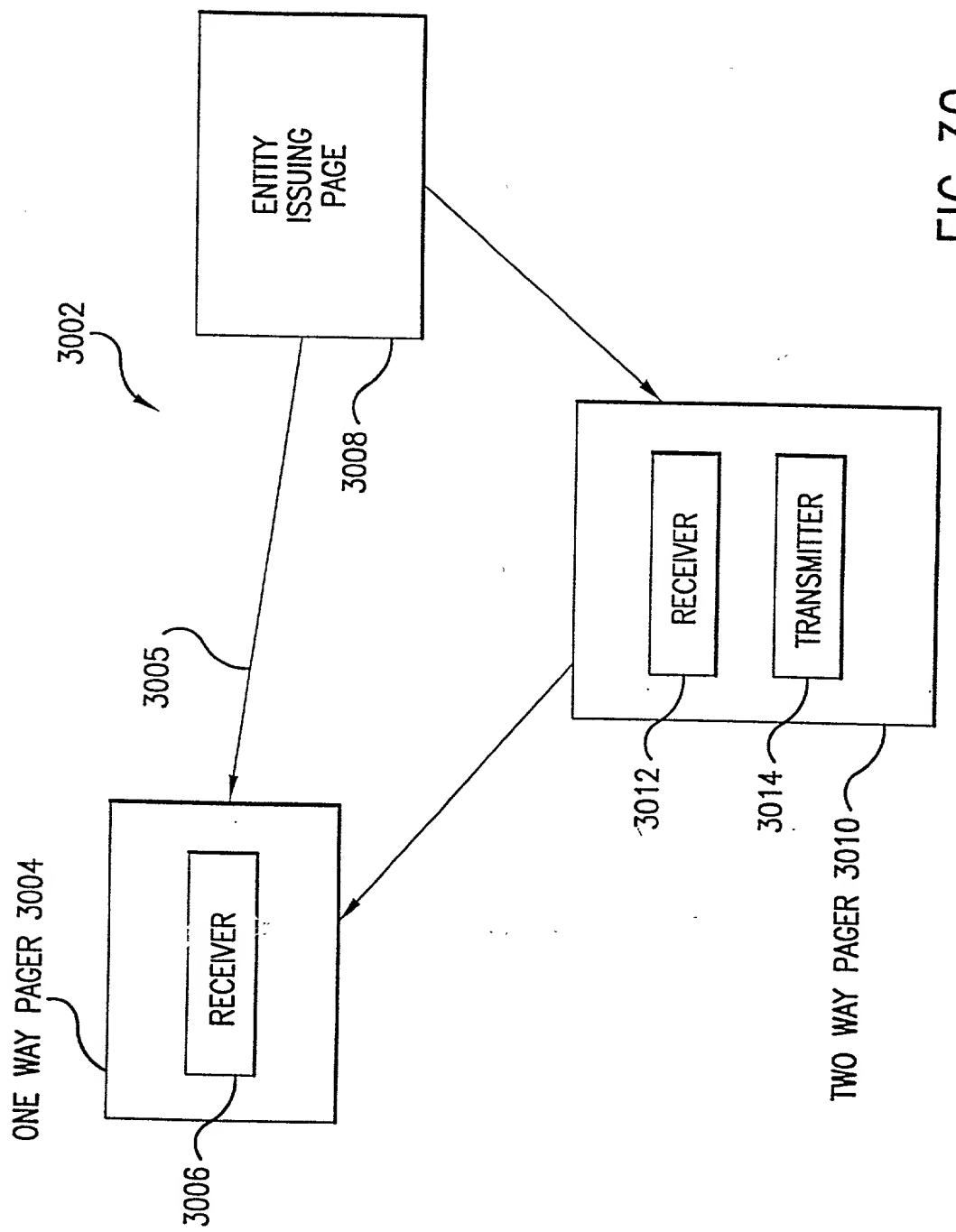


FIG. 30

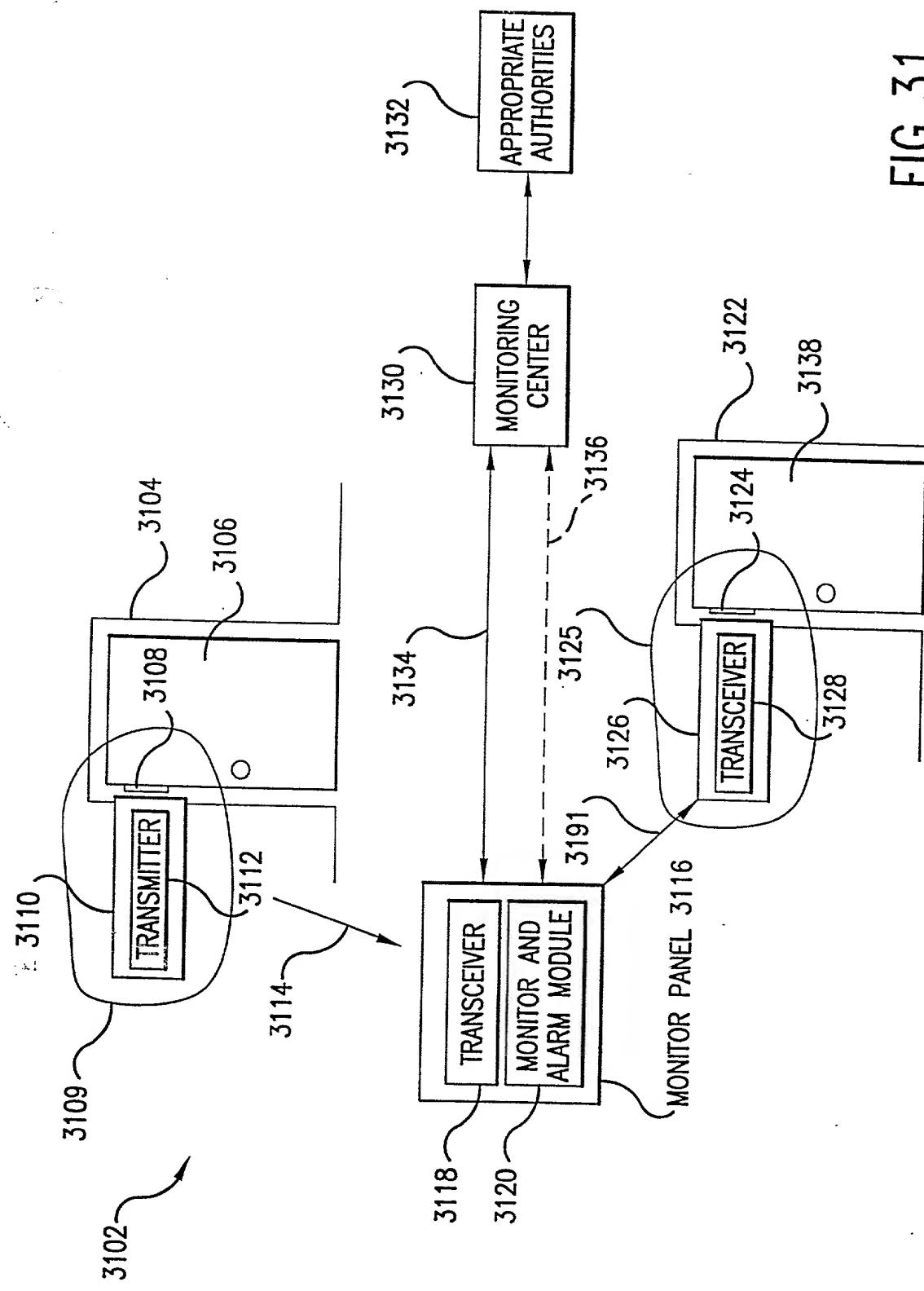


FIG. 31

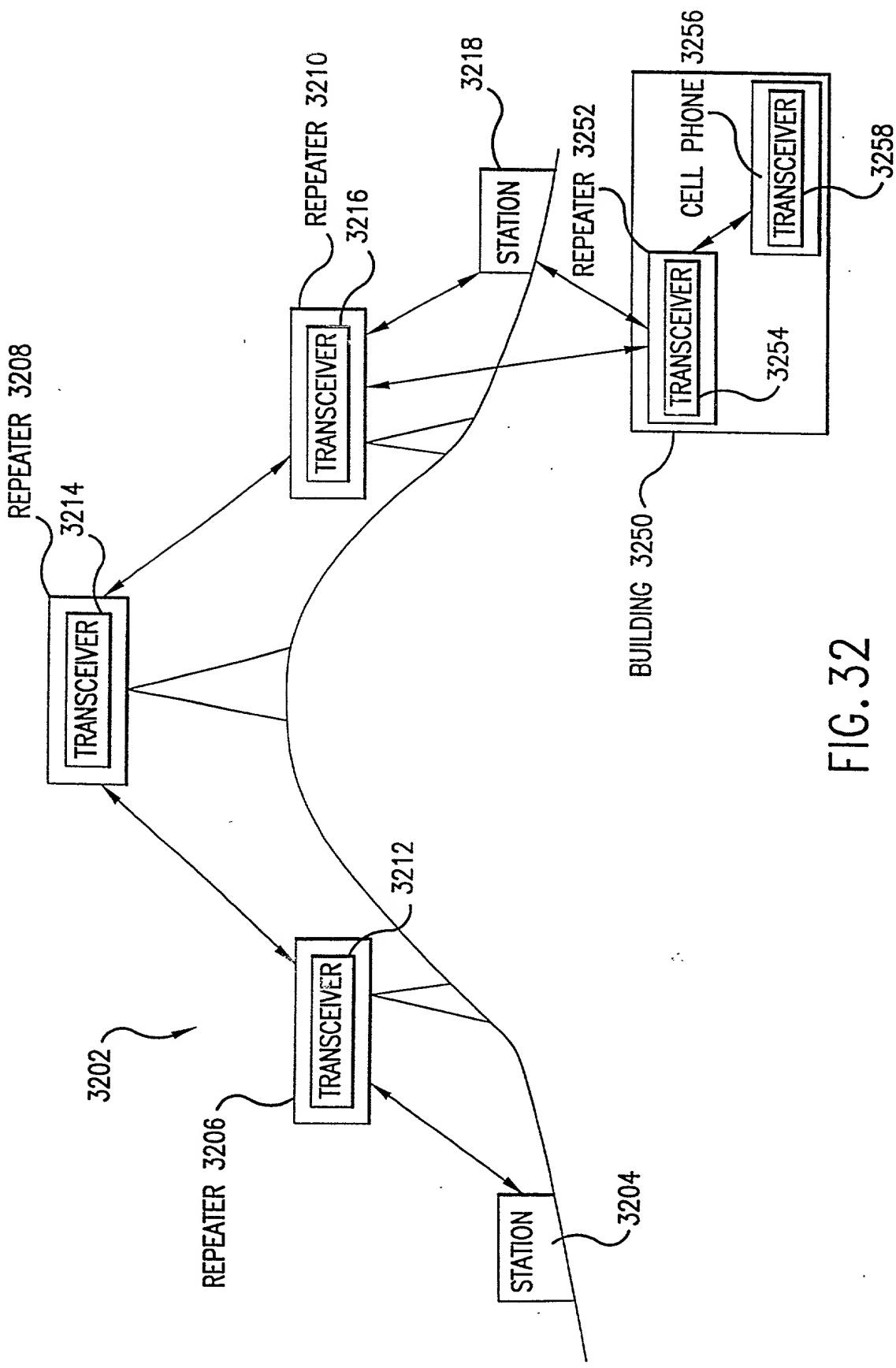


FIG. 32

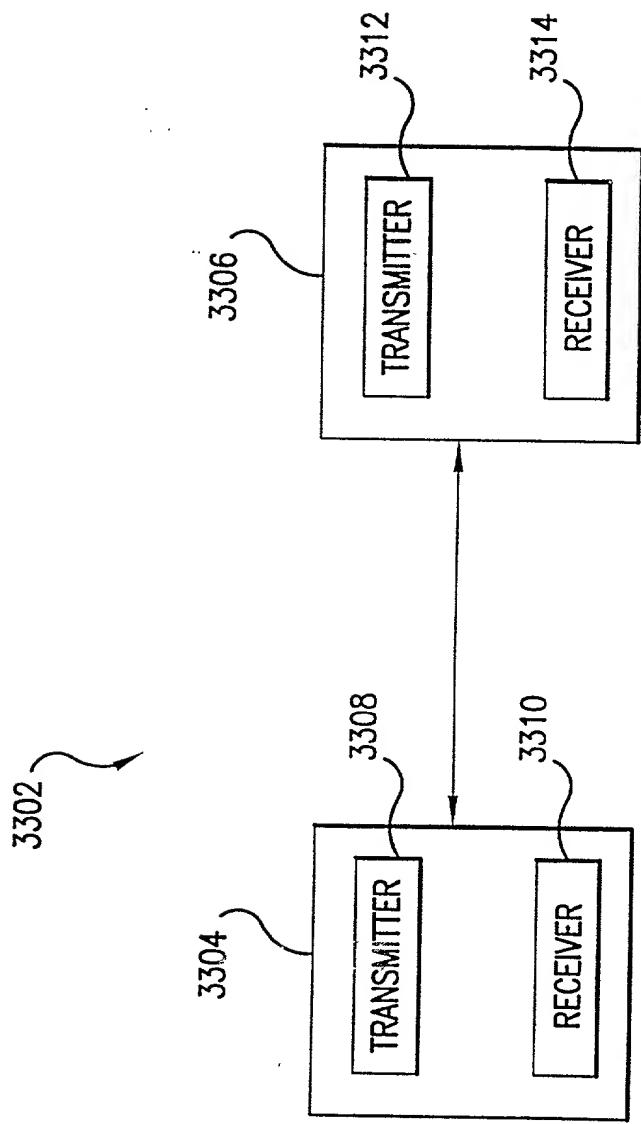


FIG. 33

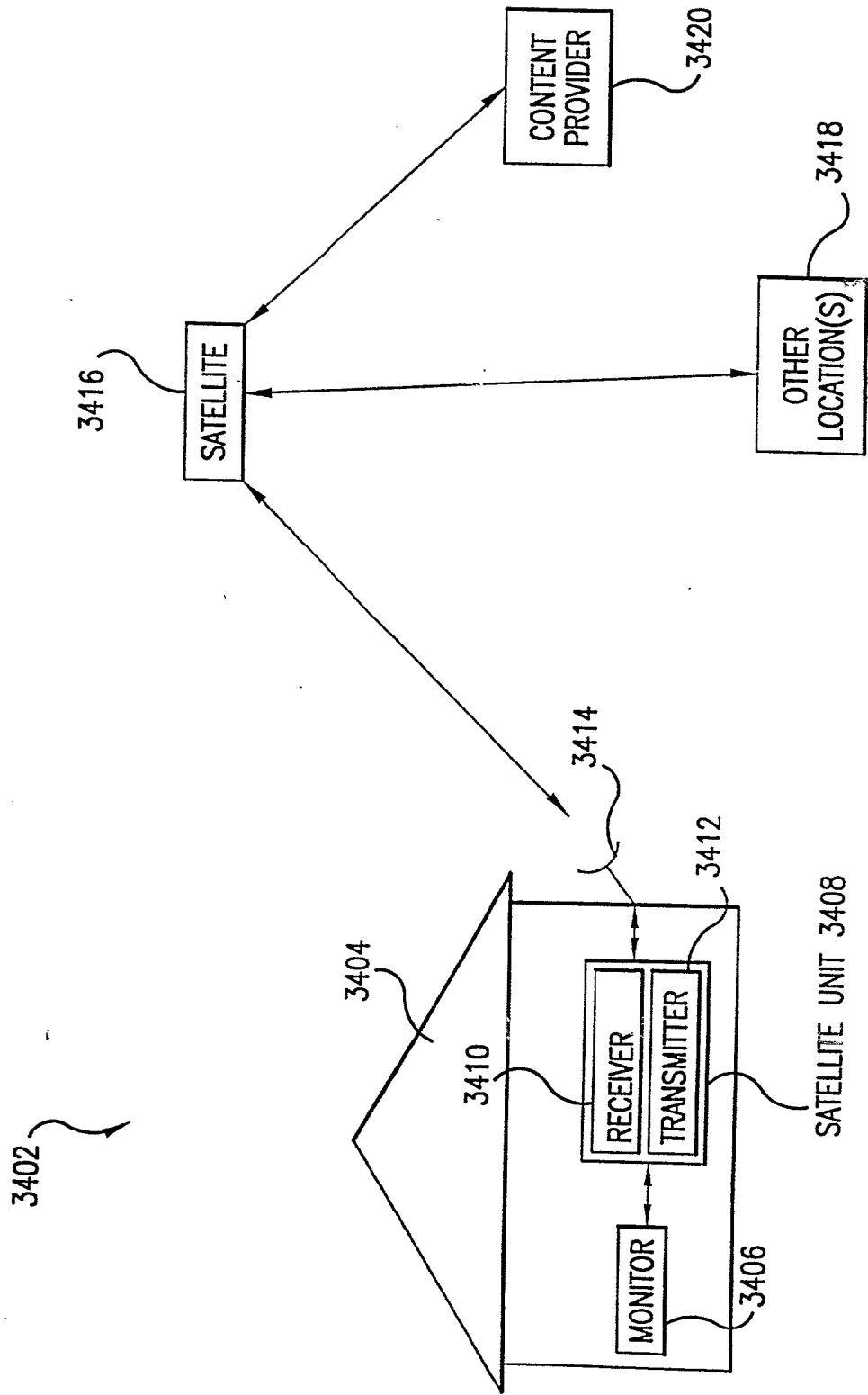


FIG. 34

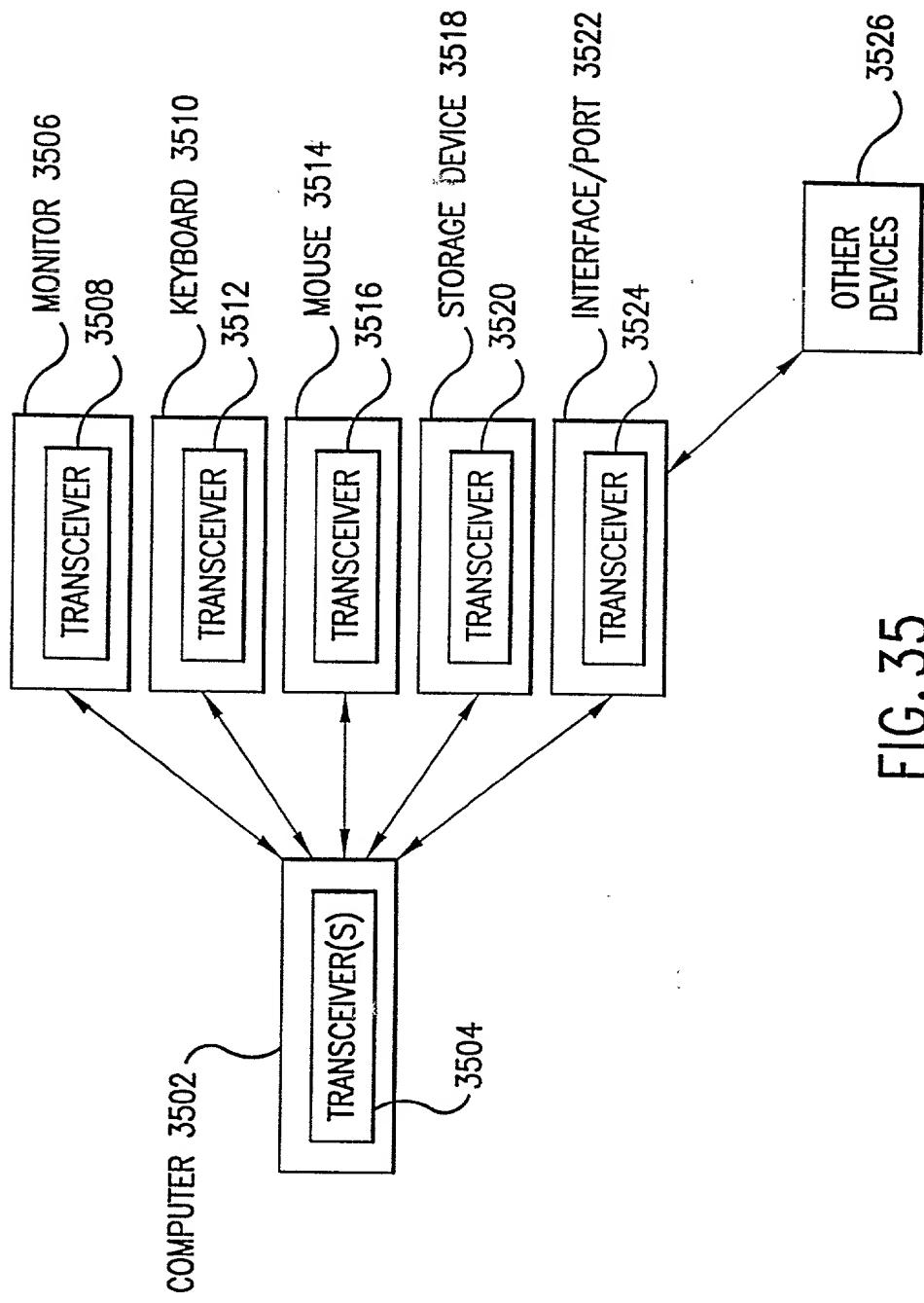


FIG. 35

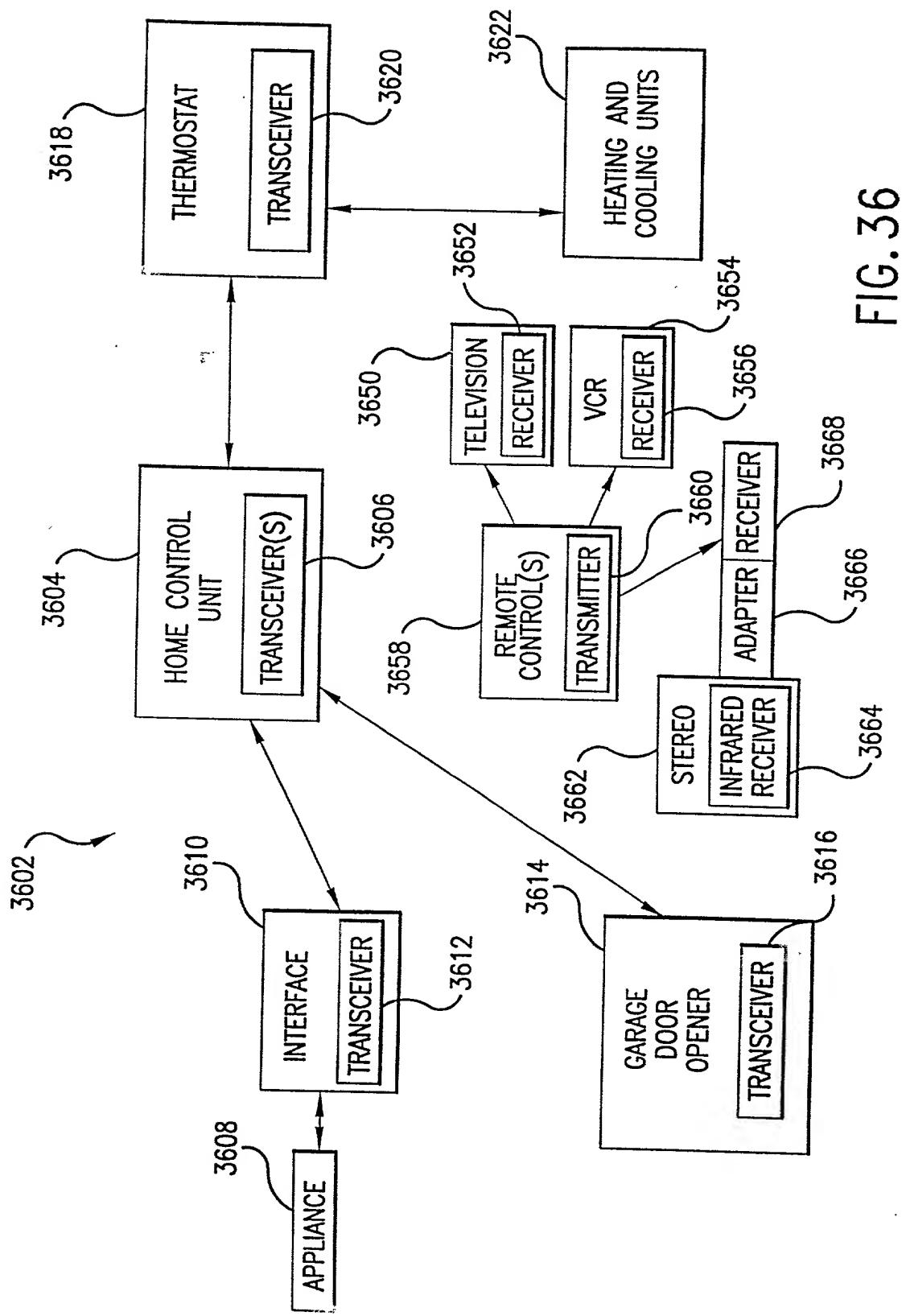


FIG. 36

TELEMETRY SYSTEM

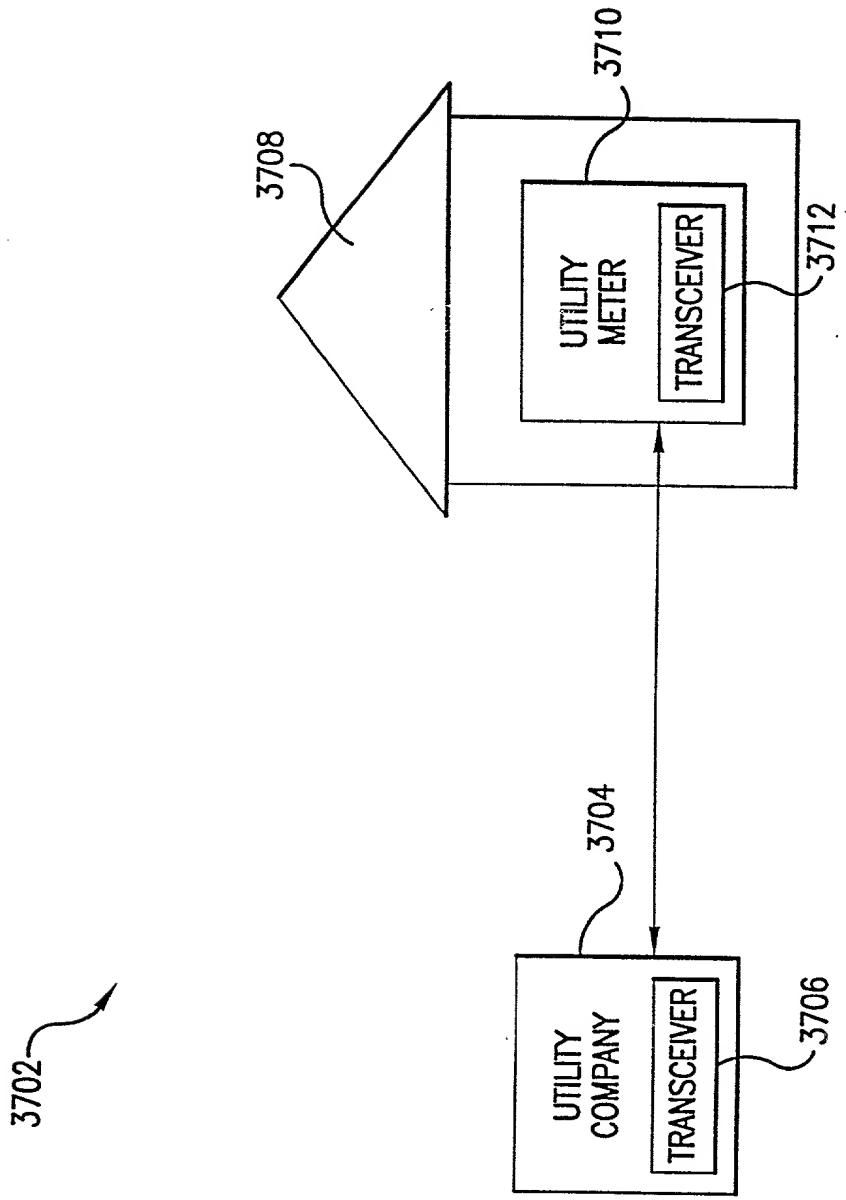


FIG. 37

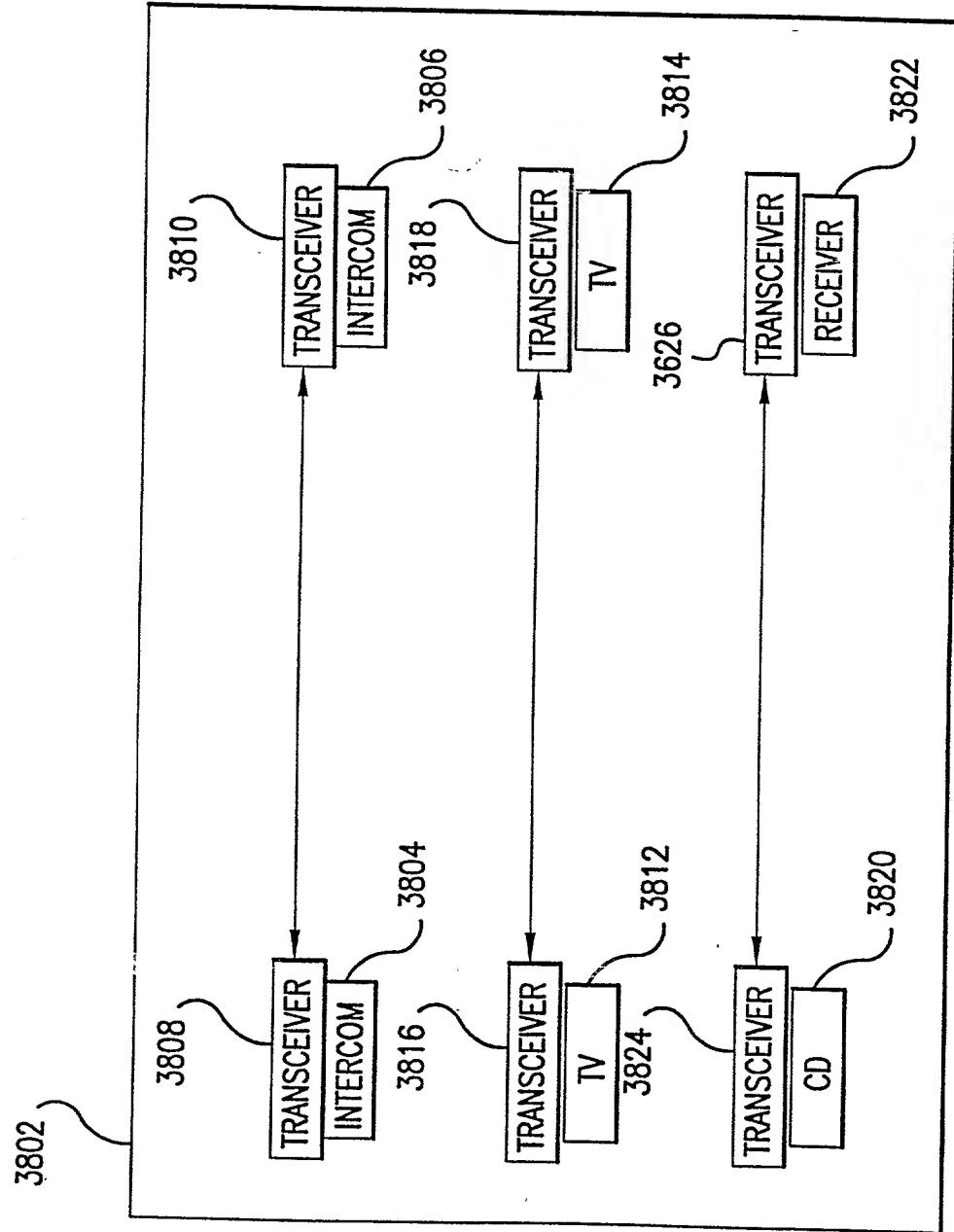


FIG. 38

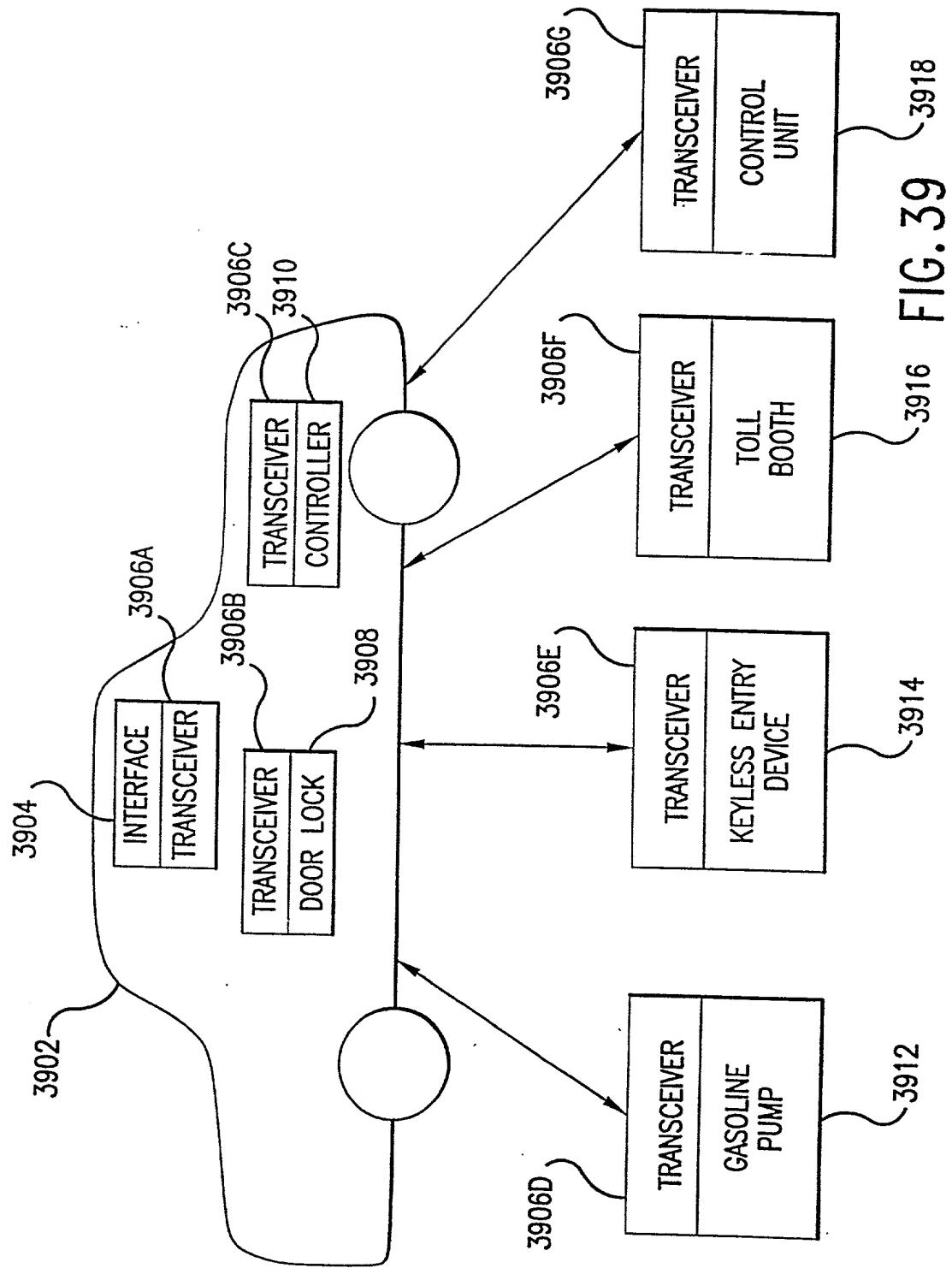


FIG. 39

3914

3912

3916

3918

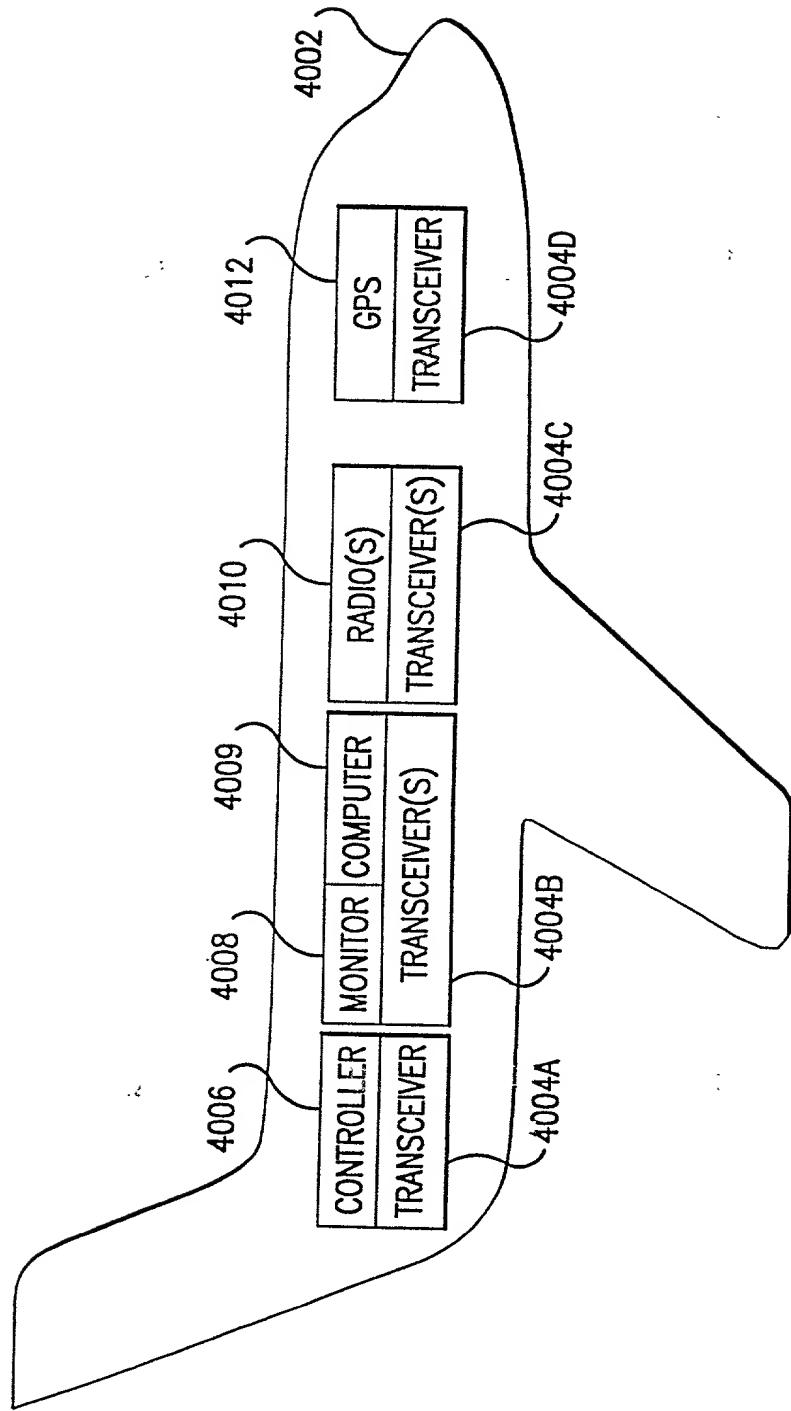


FIG. 40A

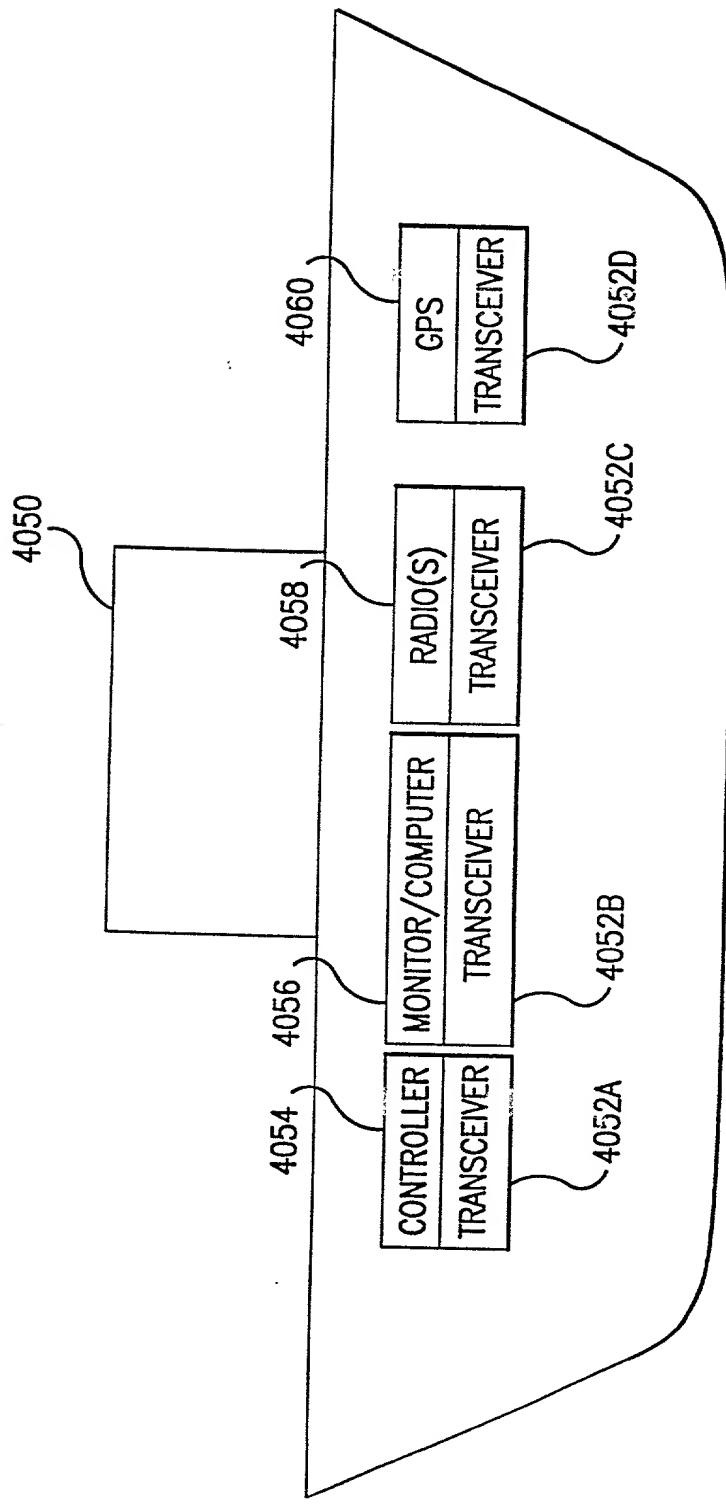


FIG. 40B

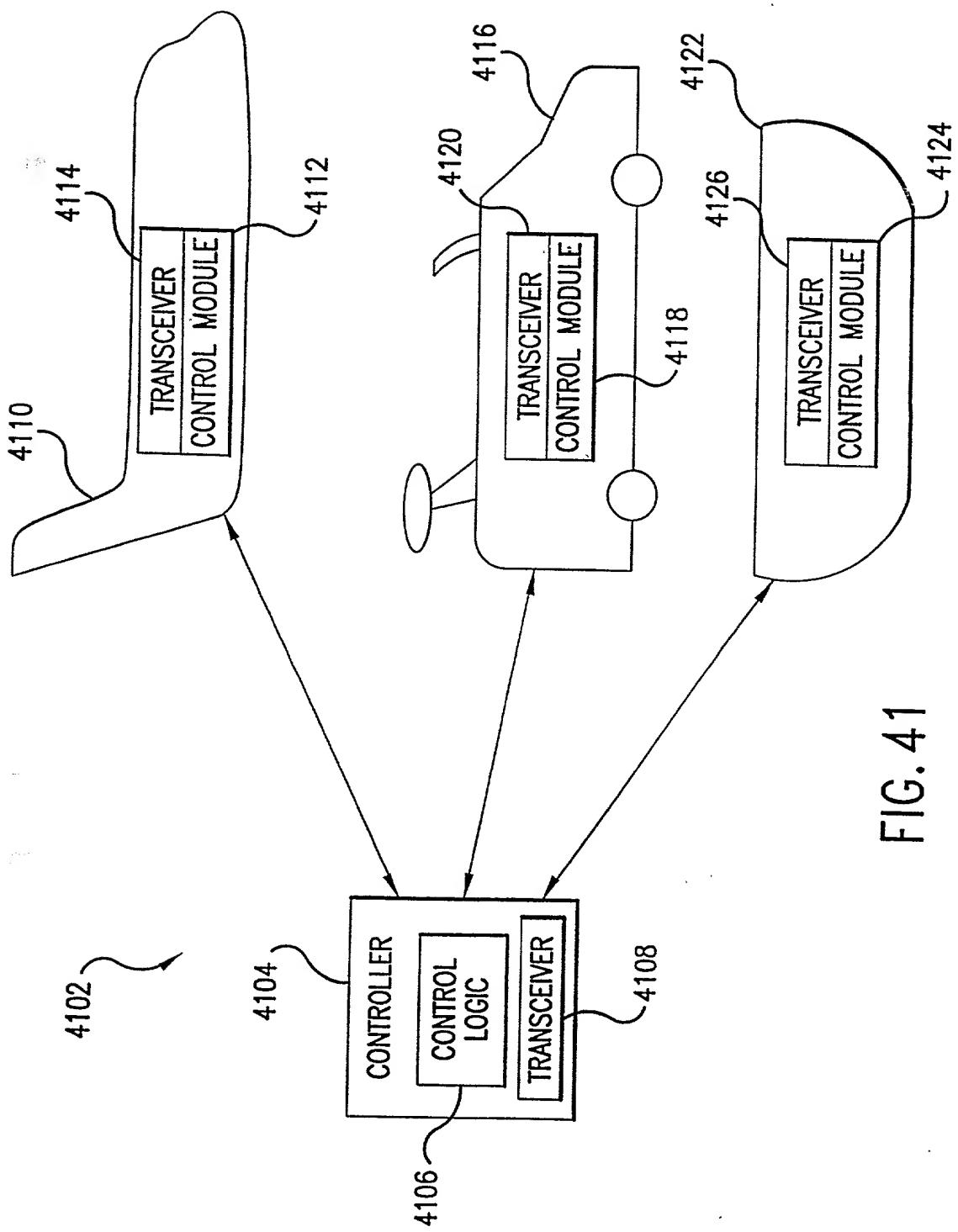


FIG. 41

PART 15	10kHz	500kHz	1.0MHz	1.5	2.0	4.0	6.0	8.0	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50
STANDARD FREQUENCIES							CHU	WWV	WWH				CHU	WWV	WWH	WWV	WWH												
DISTRESS, CALLING, SEARCH & RESCUE																													
AMATEUR RADIO						160M		80M		40M		30M		20M		17M		15M		12M		10M		10M		6M			
BROADCASTING							AM	BROADCAST	RADIO	49M	SW	31M	SW	25M	SW	21M	SW	19M	SW	16M	SW	13M	SW	11M	SW				
FIXED & MOBILE SERVICES																												LOW BAND LAND MOBILE	
MILITARY																													
AERONAUTICAL COMMUNICATION & NAVIGATION																													
MARITIME COMMUNICATION & NAVIGATION																													
SCIENTIFIC & SPACE																													
	10kHz	500kHz	1.0MHz	1.5	2.0	4.0	6.0	8.0	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50

FIG. 42A

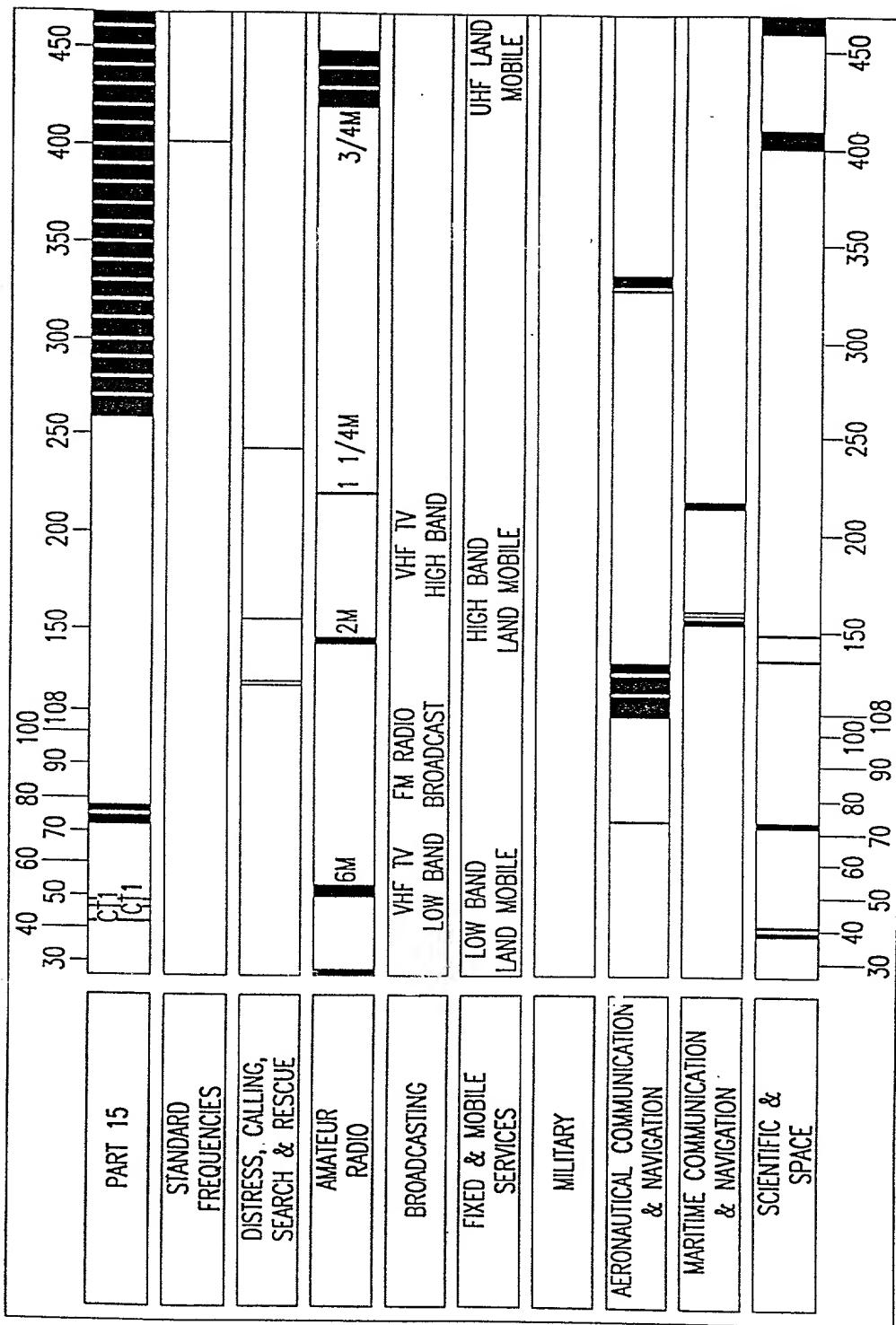


FIG. 42B

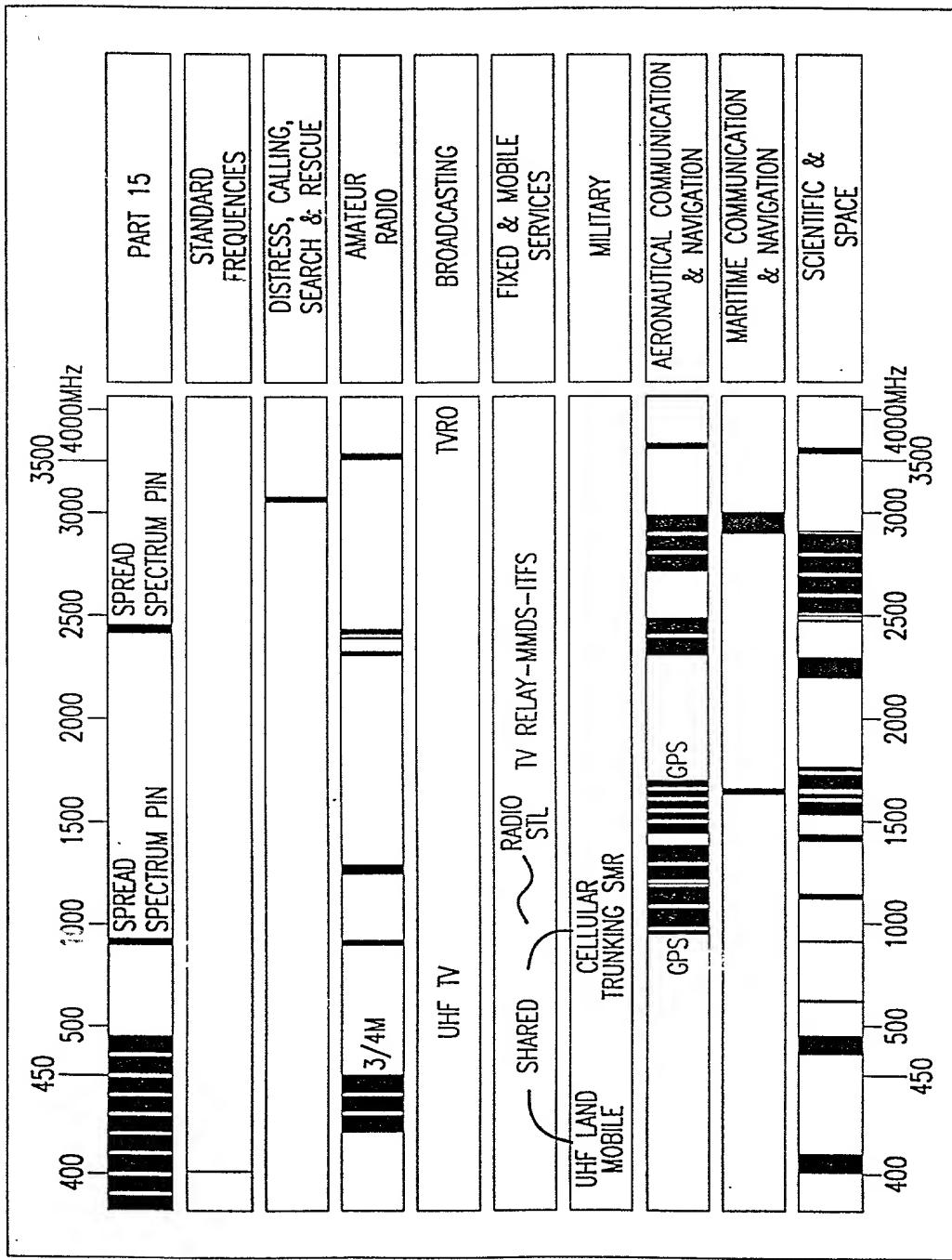


FIG. 42C

0 9 2 7 0 6 3 5 " 0 3 2 0 0 1

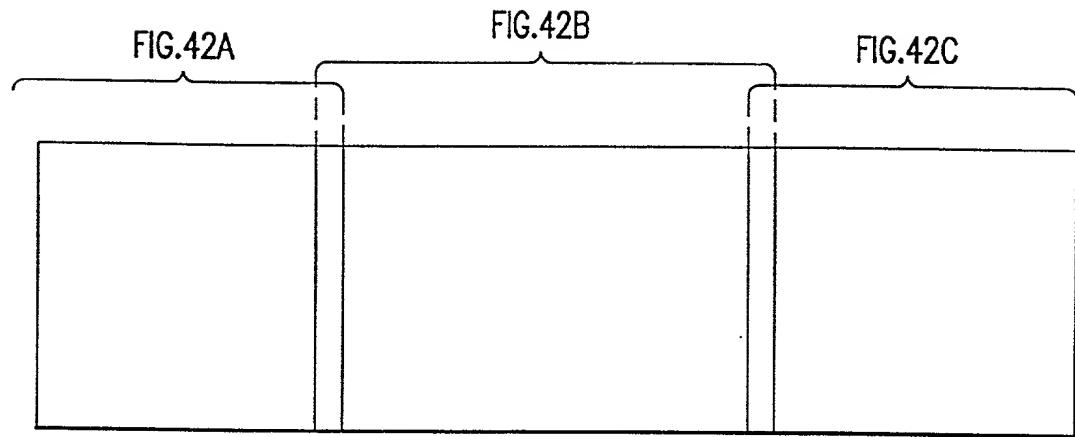


FIG.42D

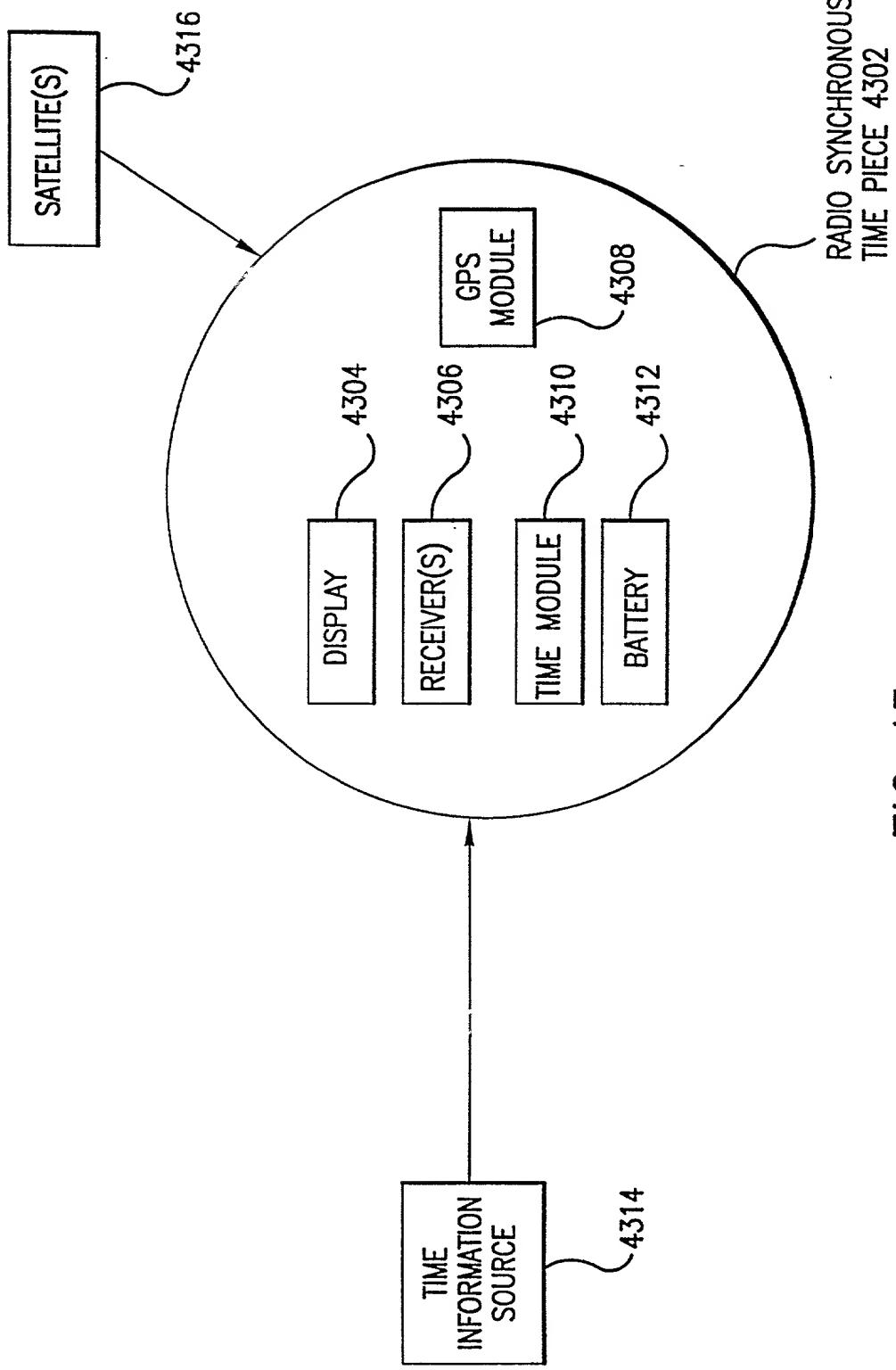


FIG. 43

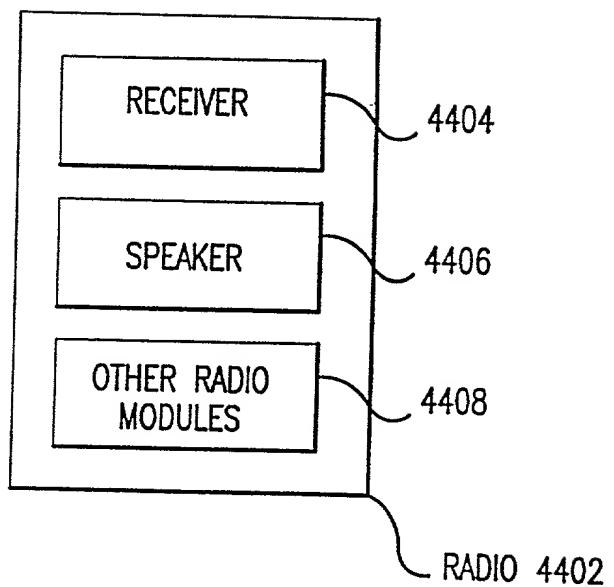


FIG. 44

45272055 - 063001

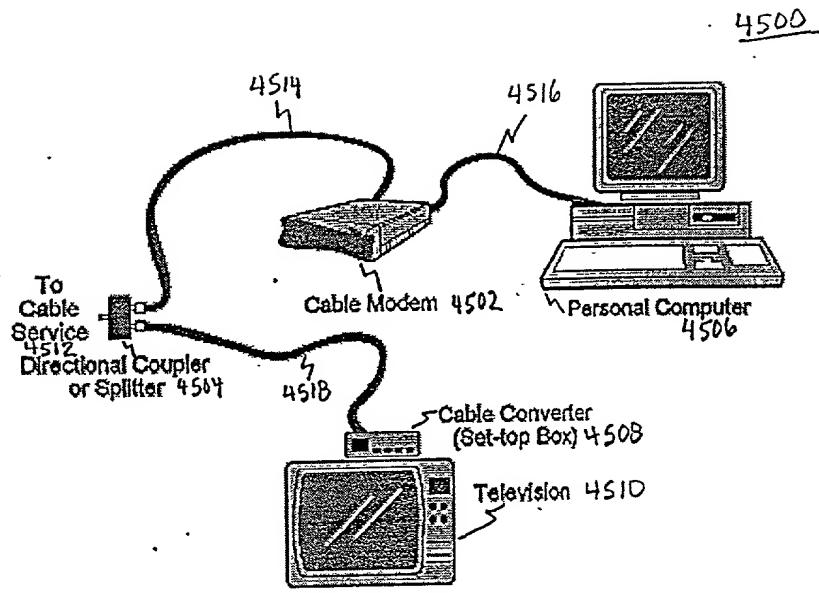


FIG. 45A

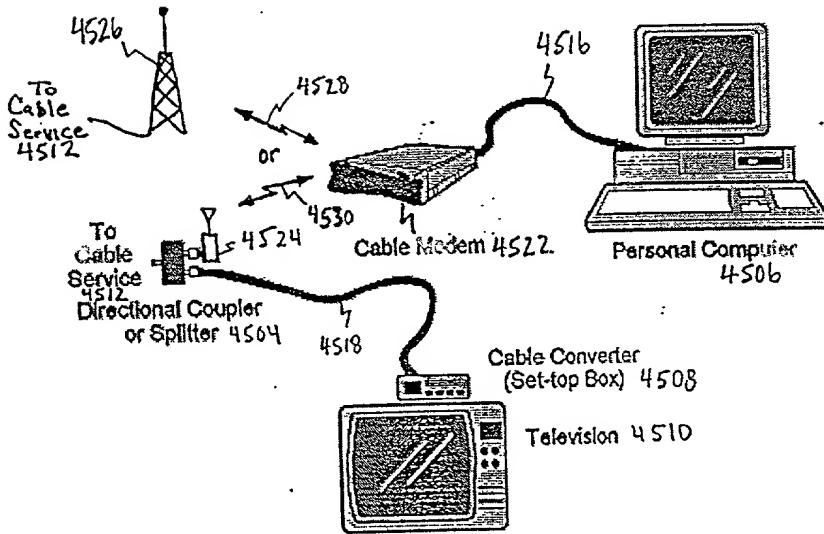


FIG. 45B

0952725083001

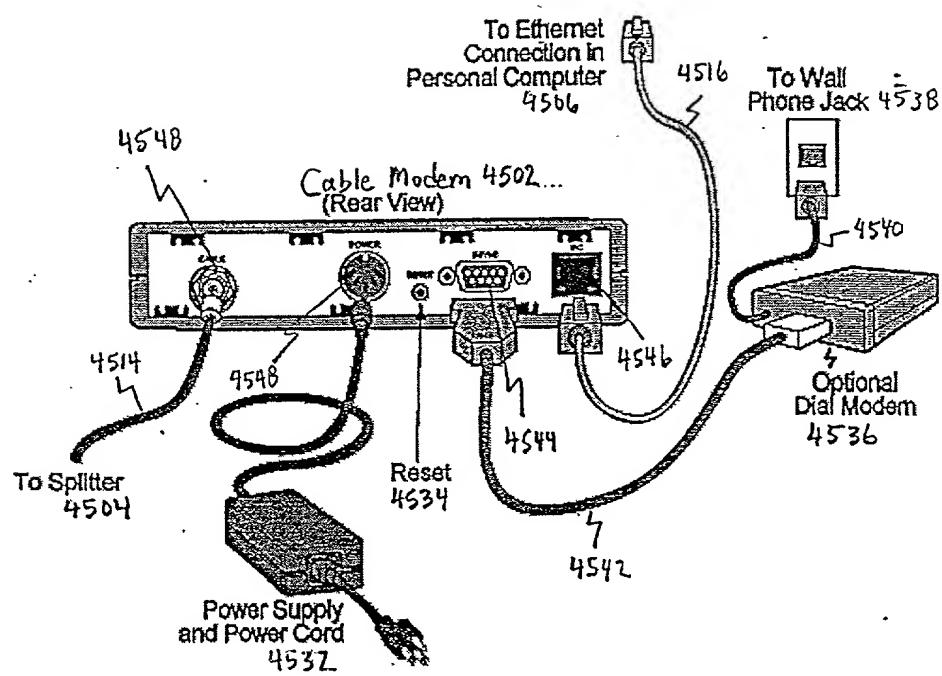


FIG. 45C

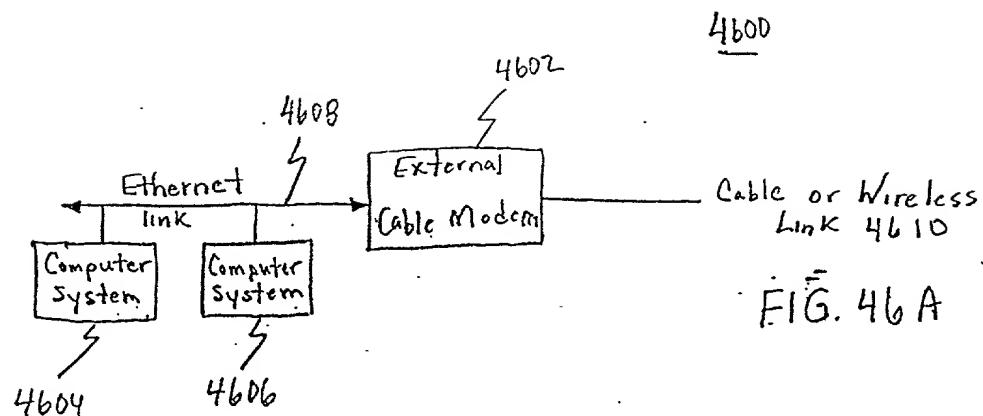


FIG. 46 A

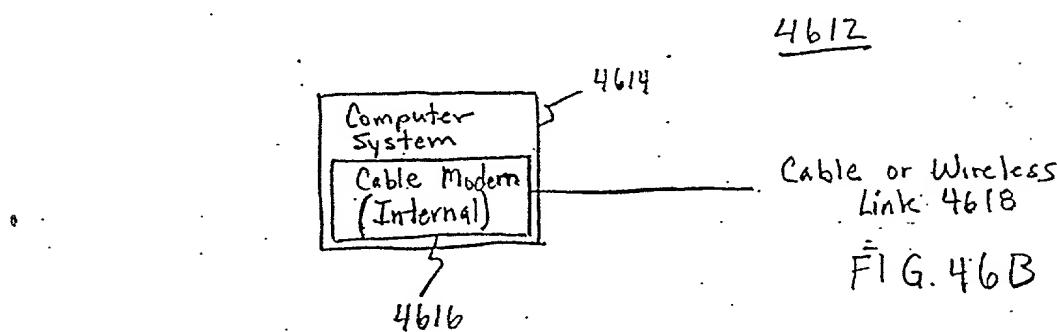


FIG. 46 B

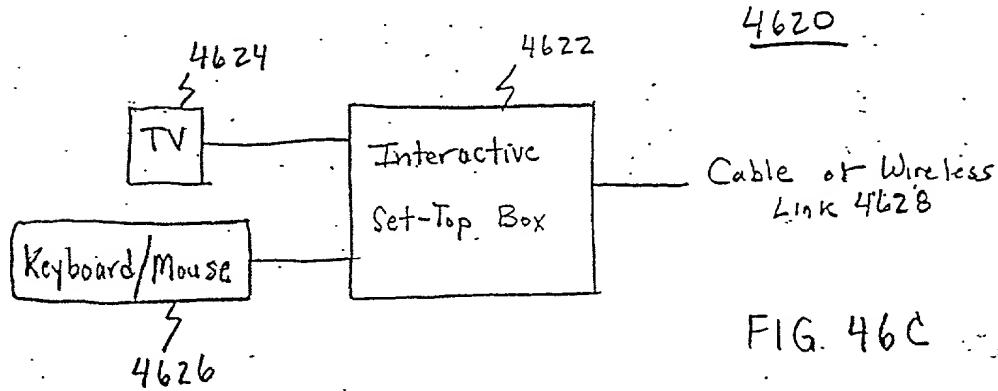


FIG. 46 C

4700

4562

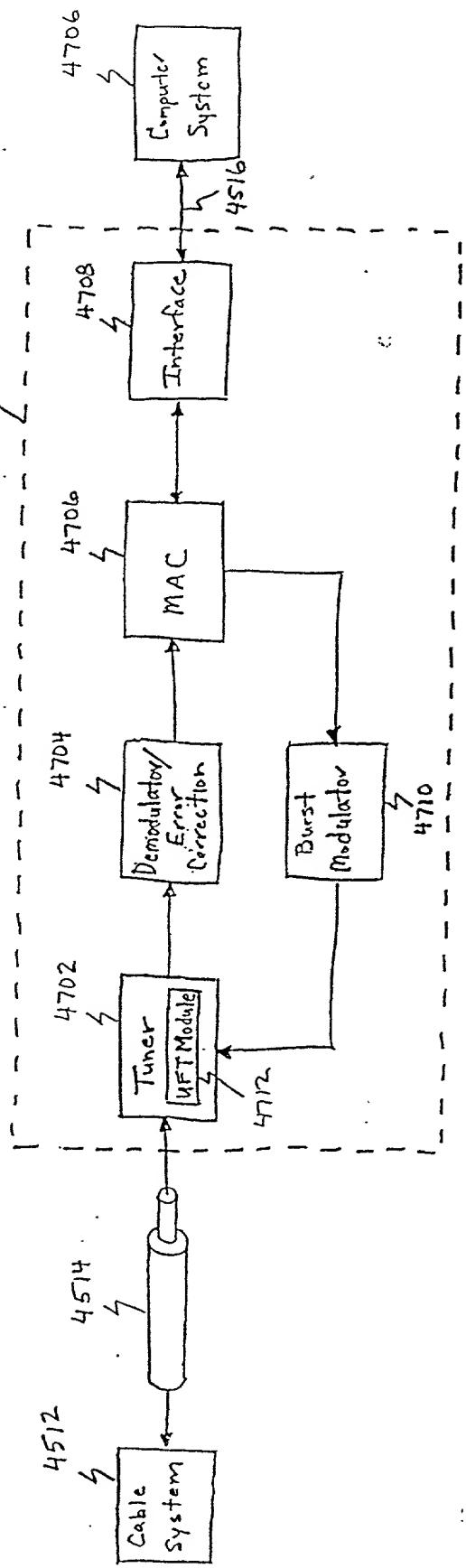


FIG. 47

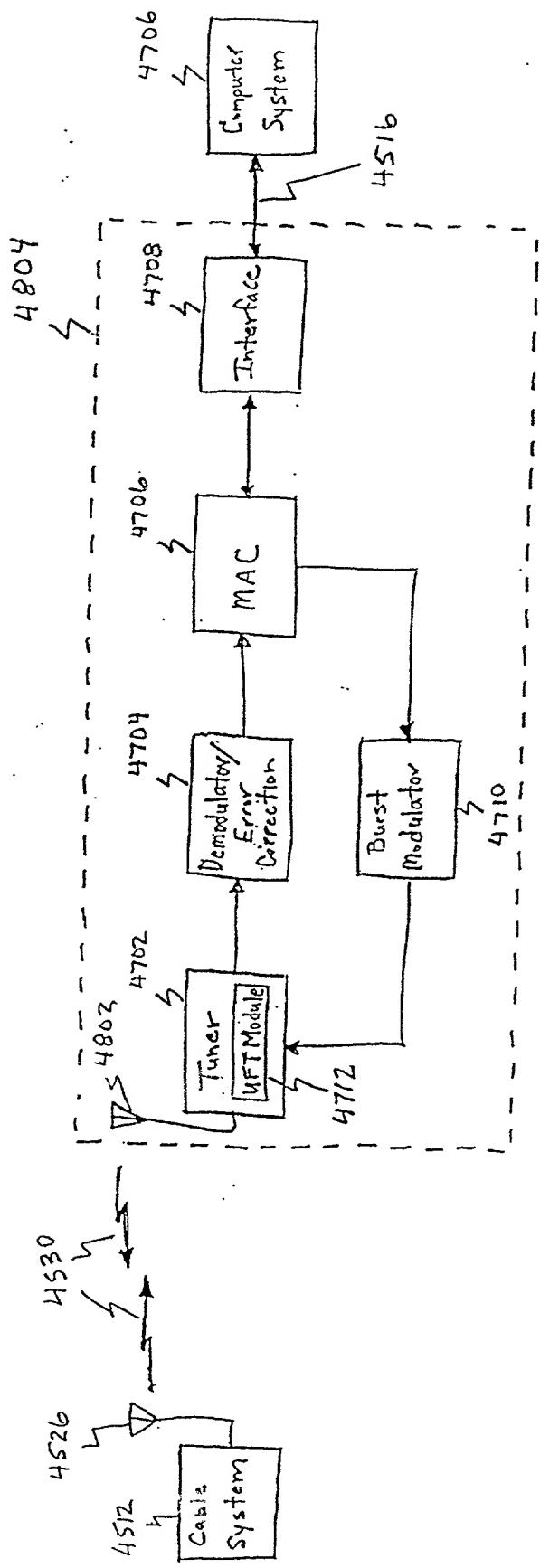


FIG. 48

FIGURE 20 - CABLE MODEM

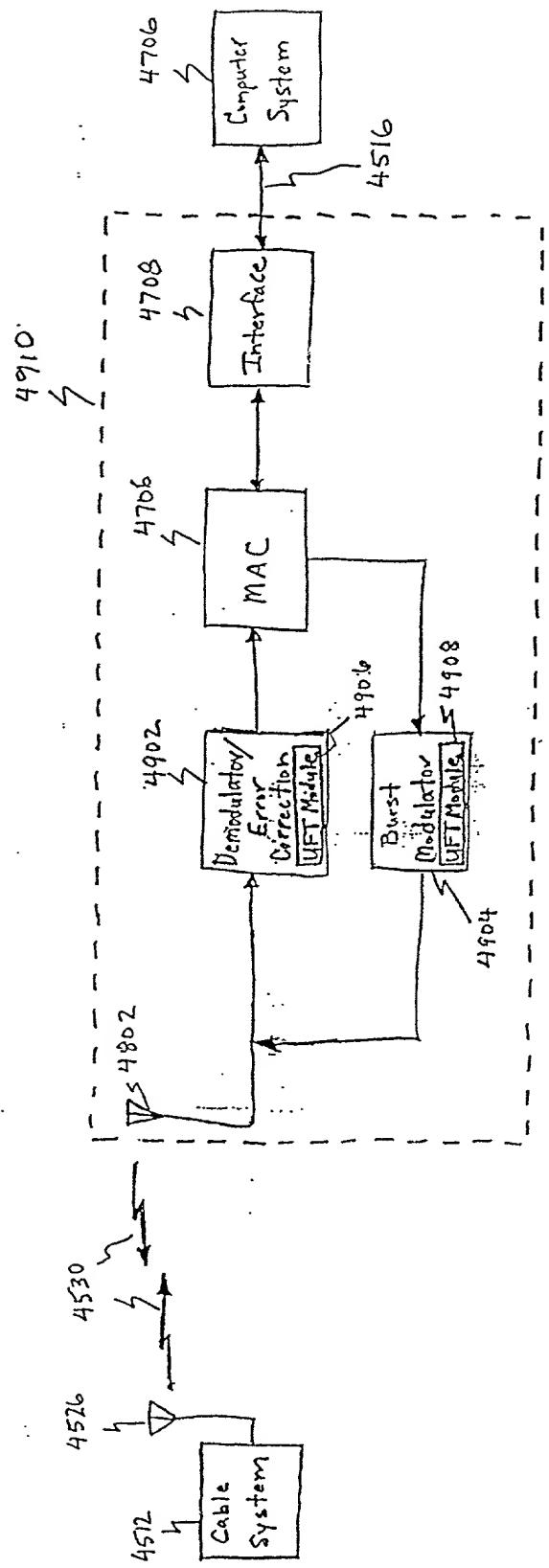


FIG. 49

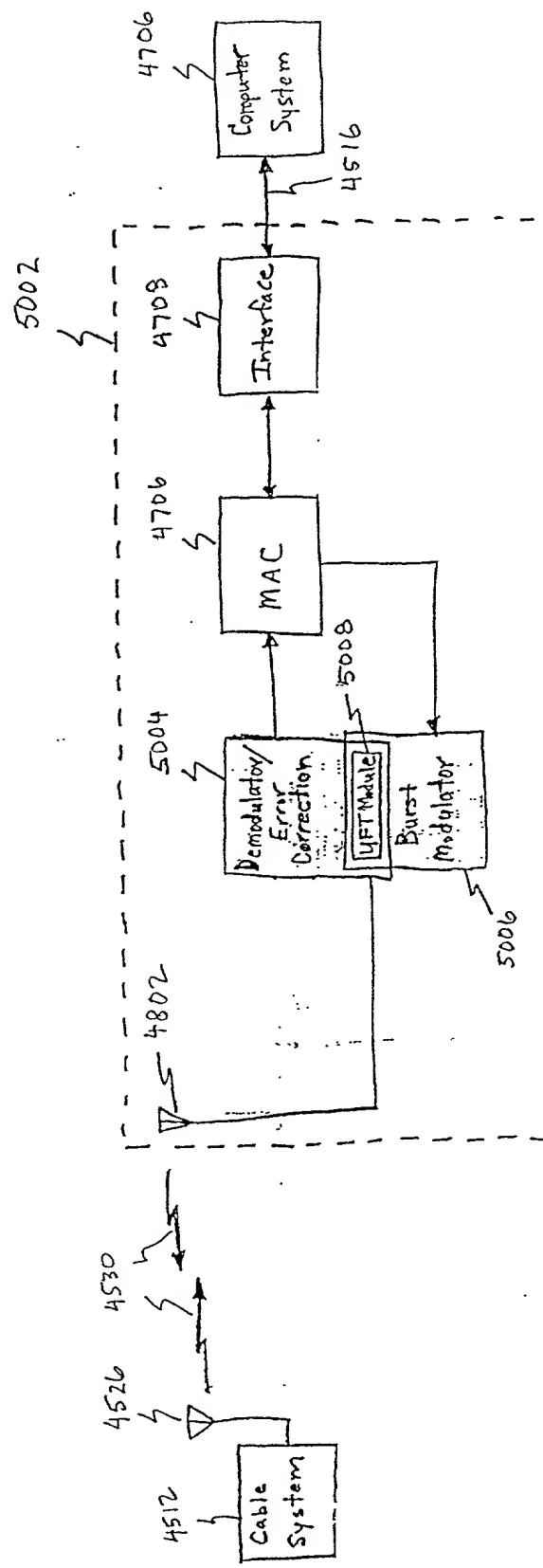


FIG. 50

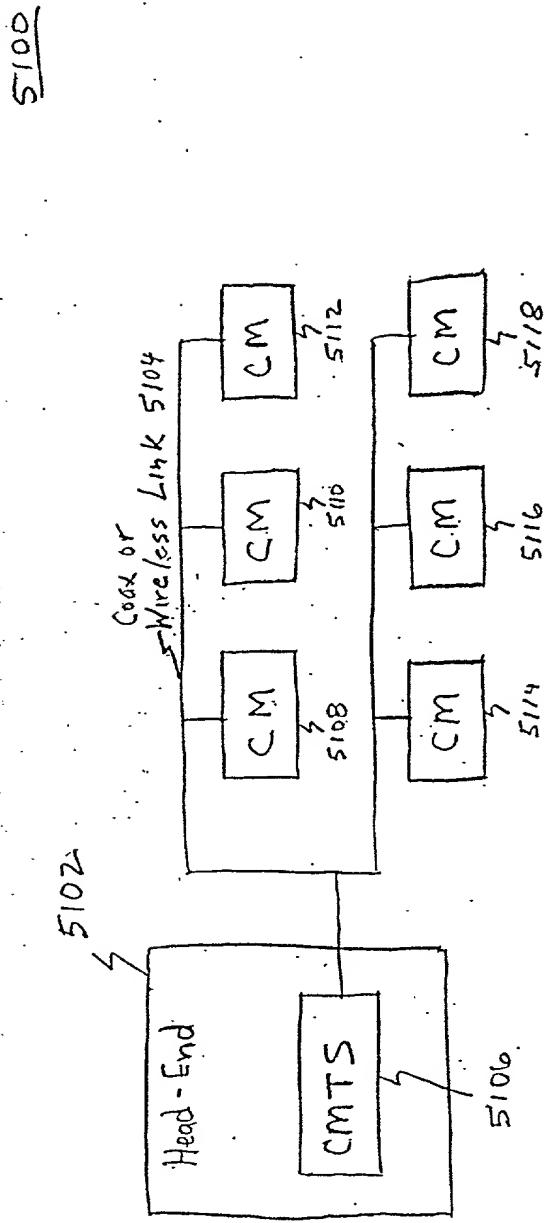


FIG. 51

TELECOM CABLES

Cmts 5106

Cable Modem 5108

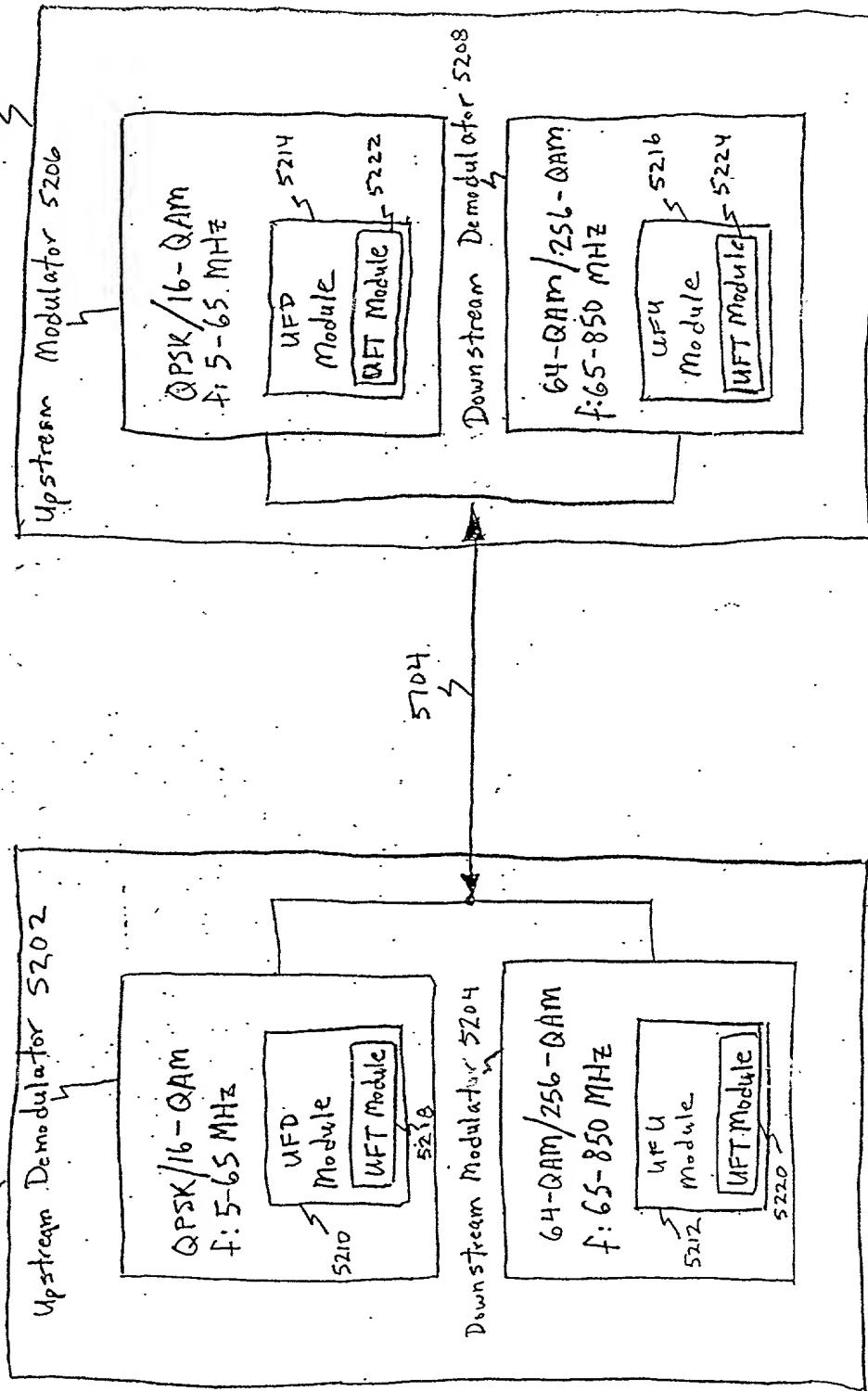


FIG. 52

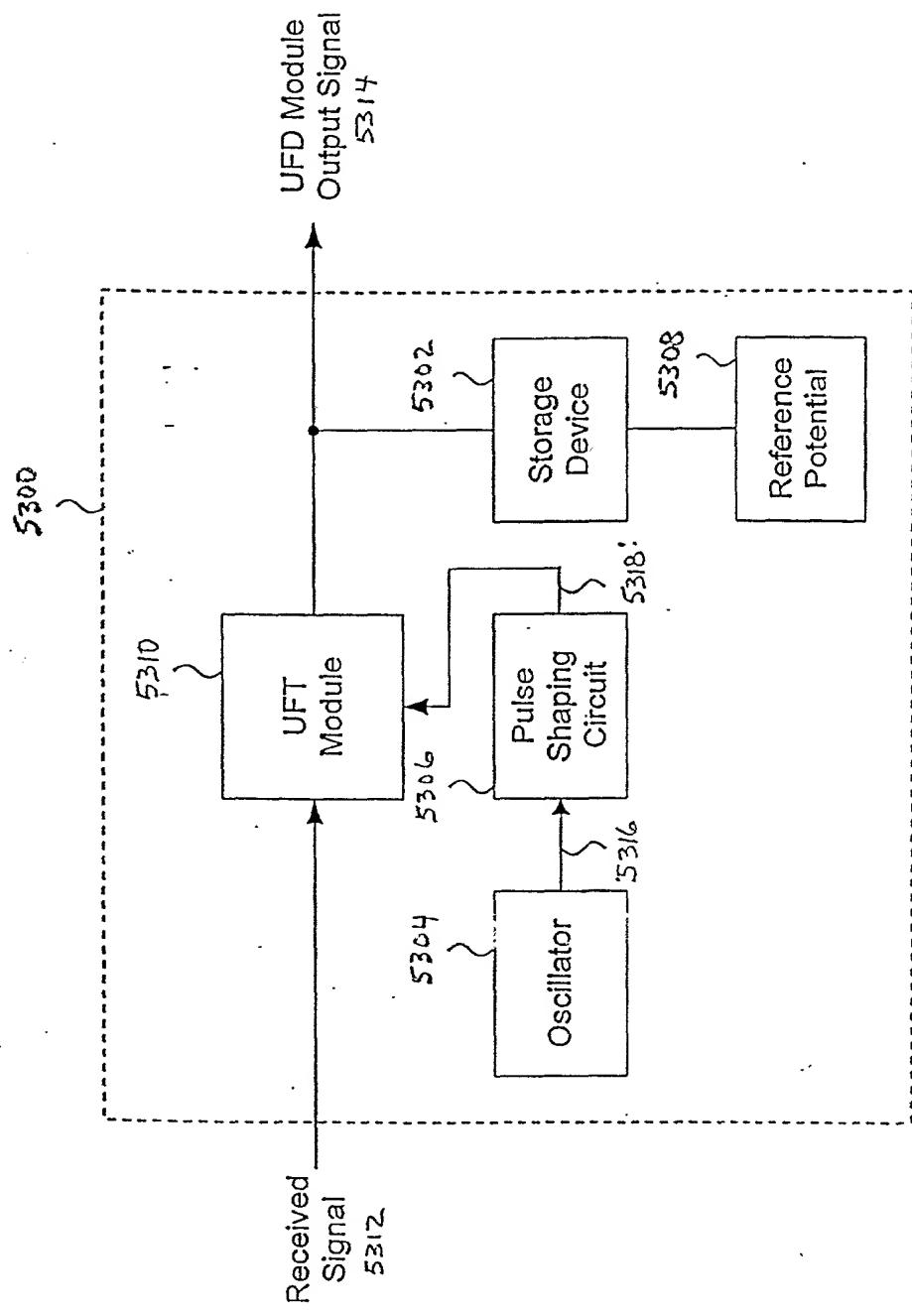


FIG. 53

FIGURE 54A QPSK/QAM Receiver

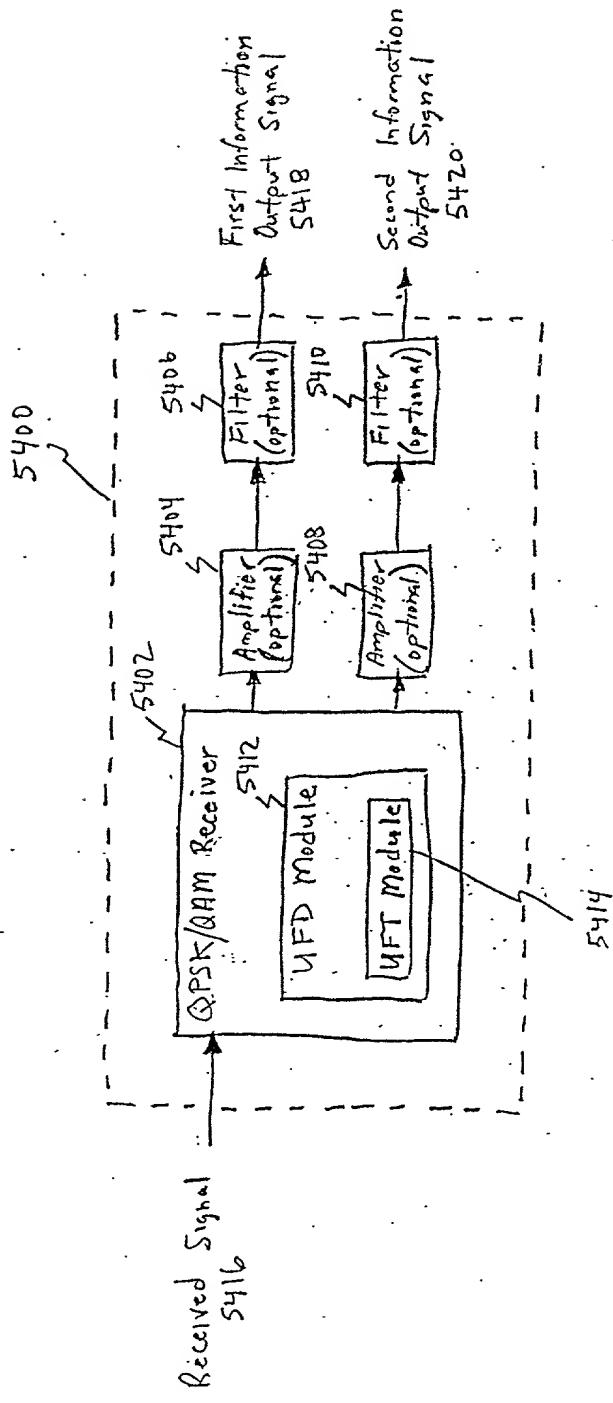


FIG. 54 A

40000000000000000000000000000000

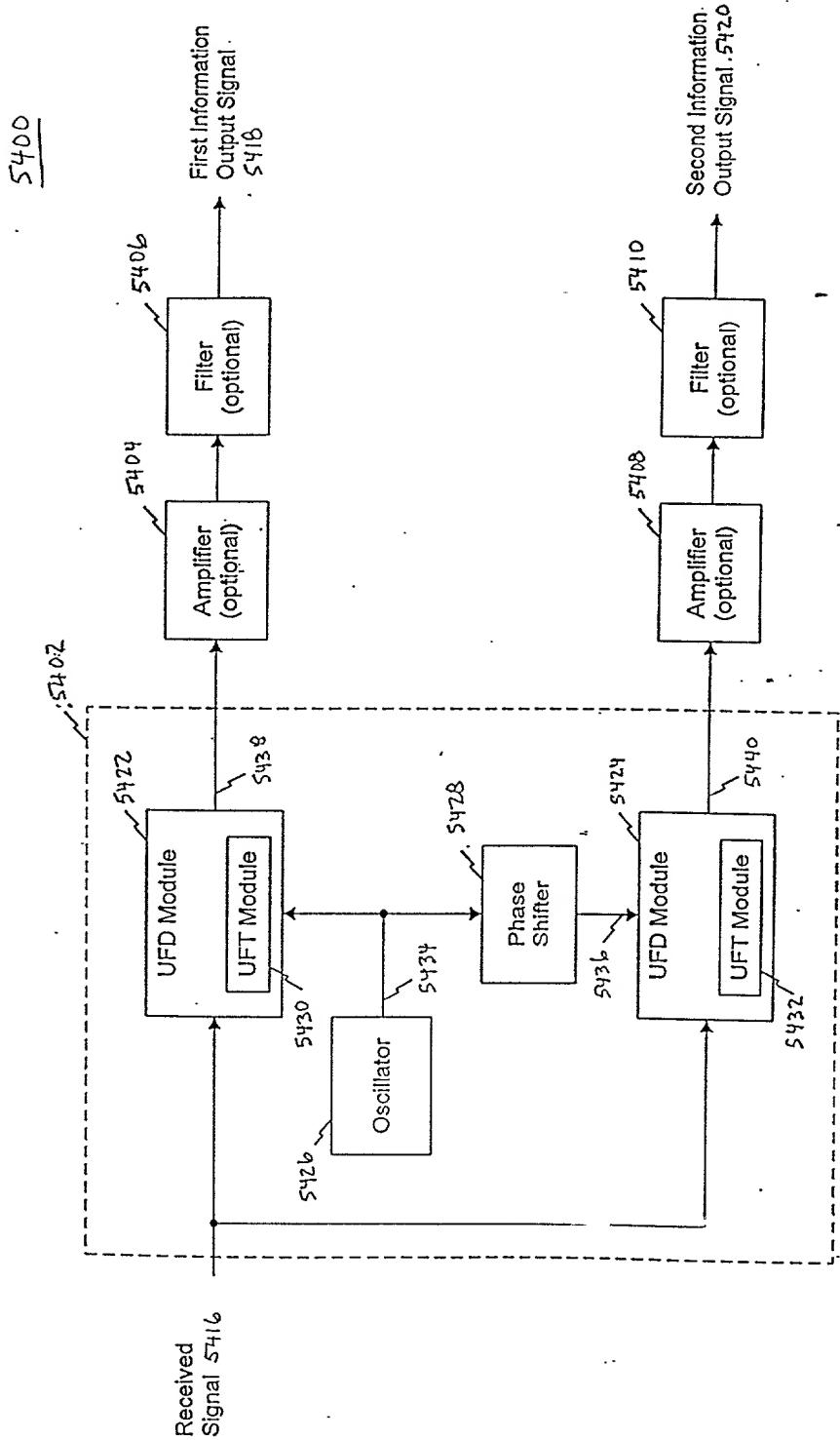


FIG. 54B

W 0 0 E 0 0 m E A C 0 Z Z G 0

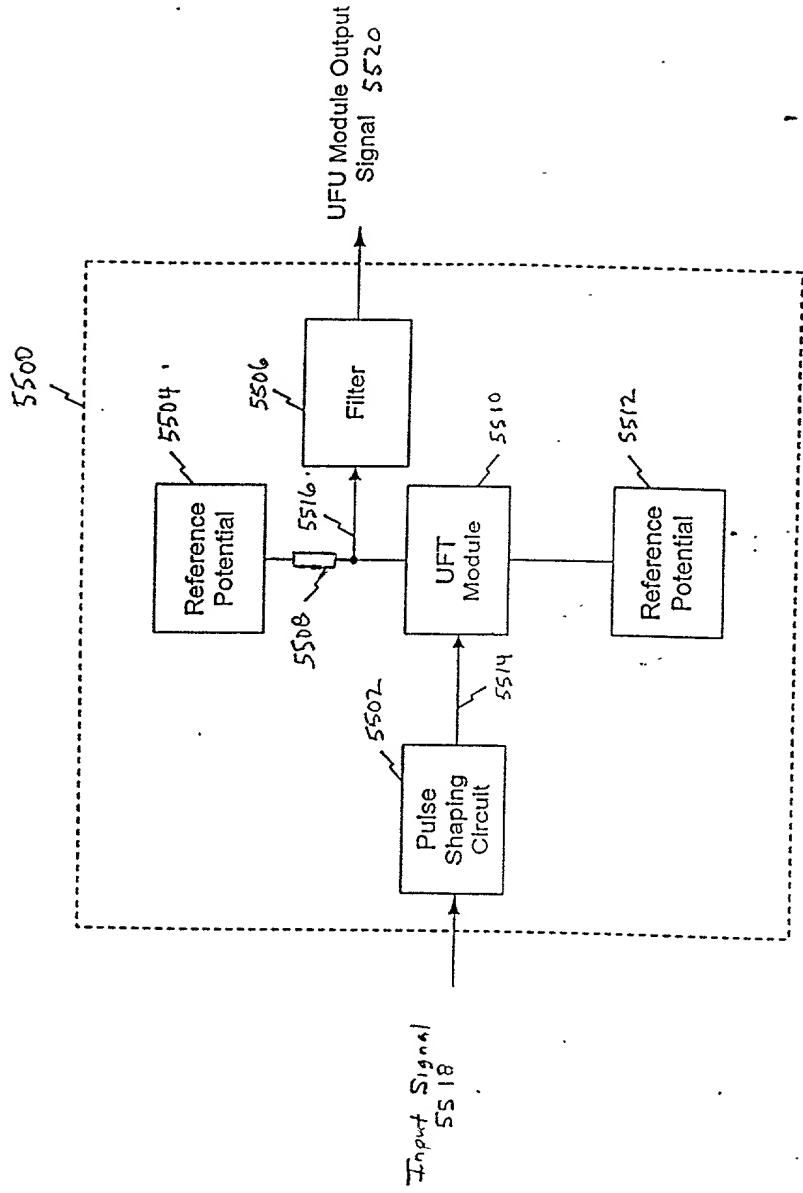


FIG. 55

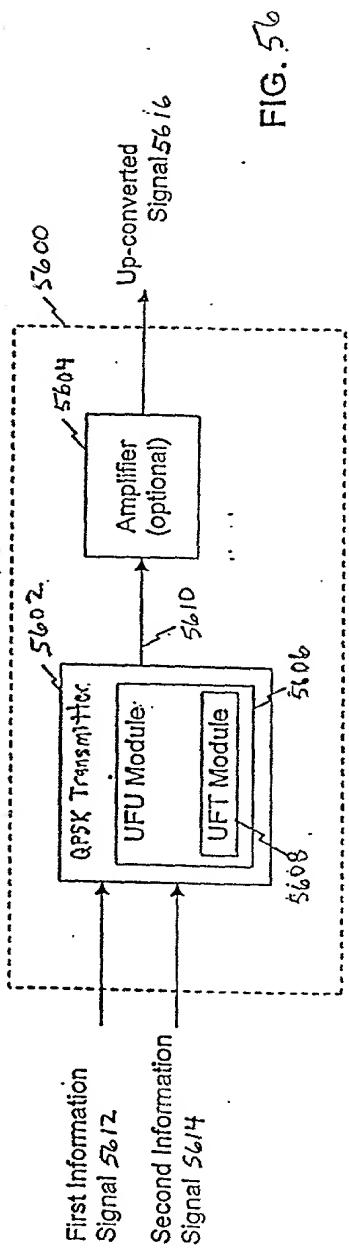


FIG. 56

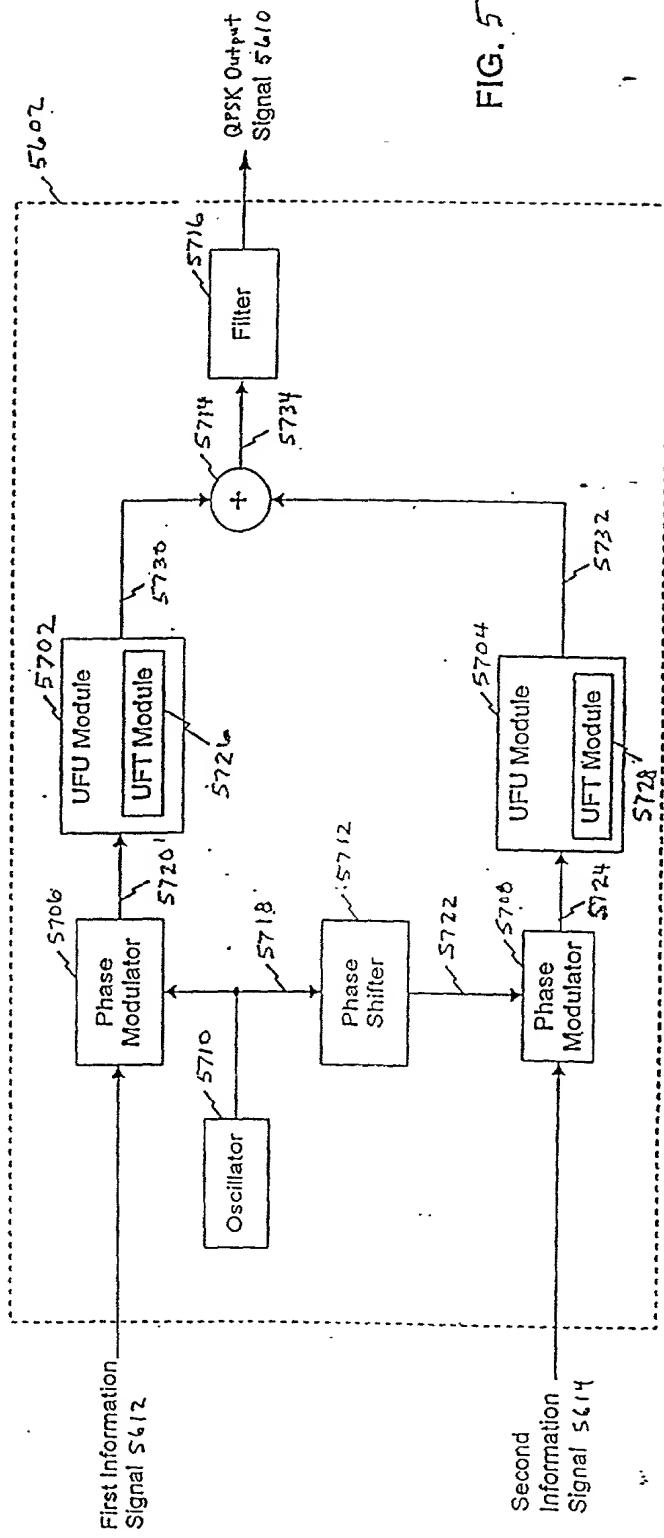


FIG. 57

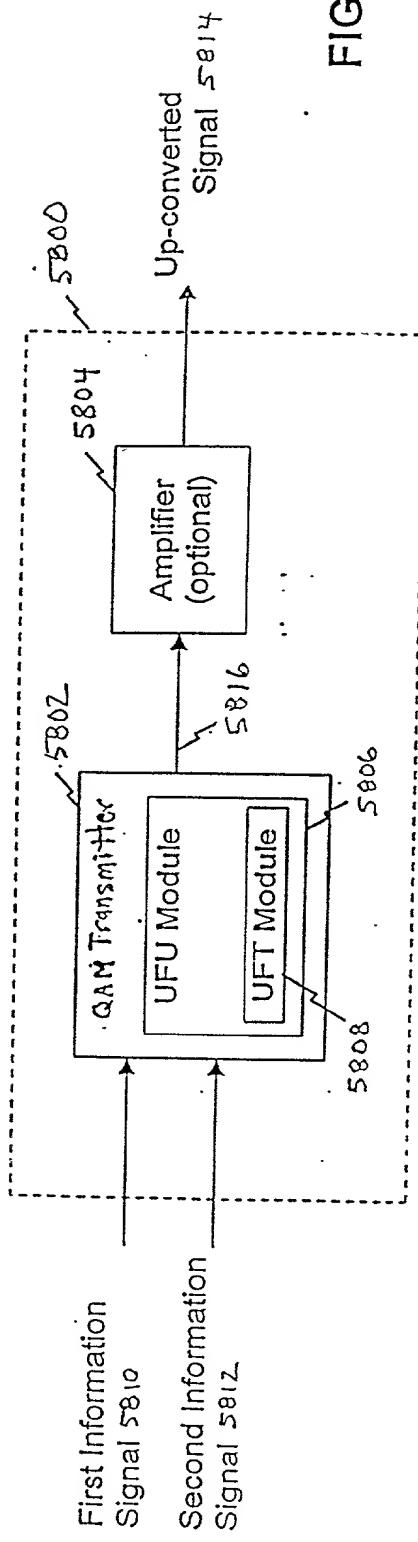


FIG. 20

FIGURE 20 "E20260"

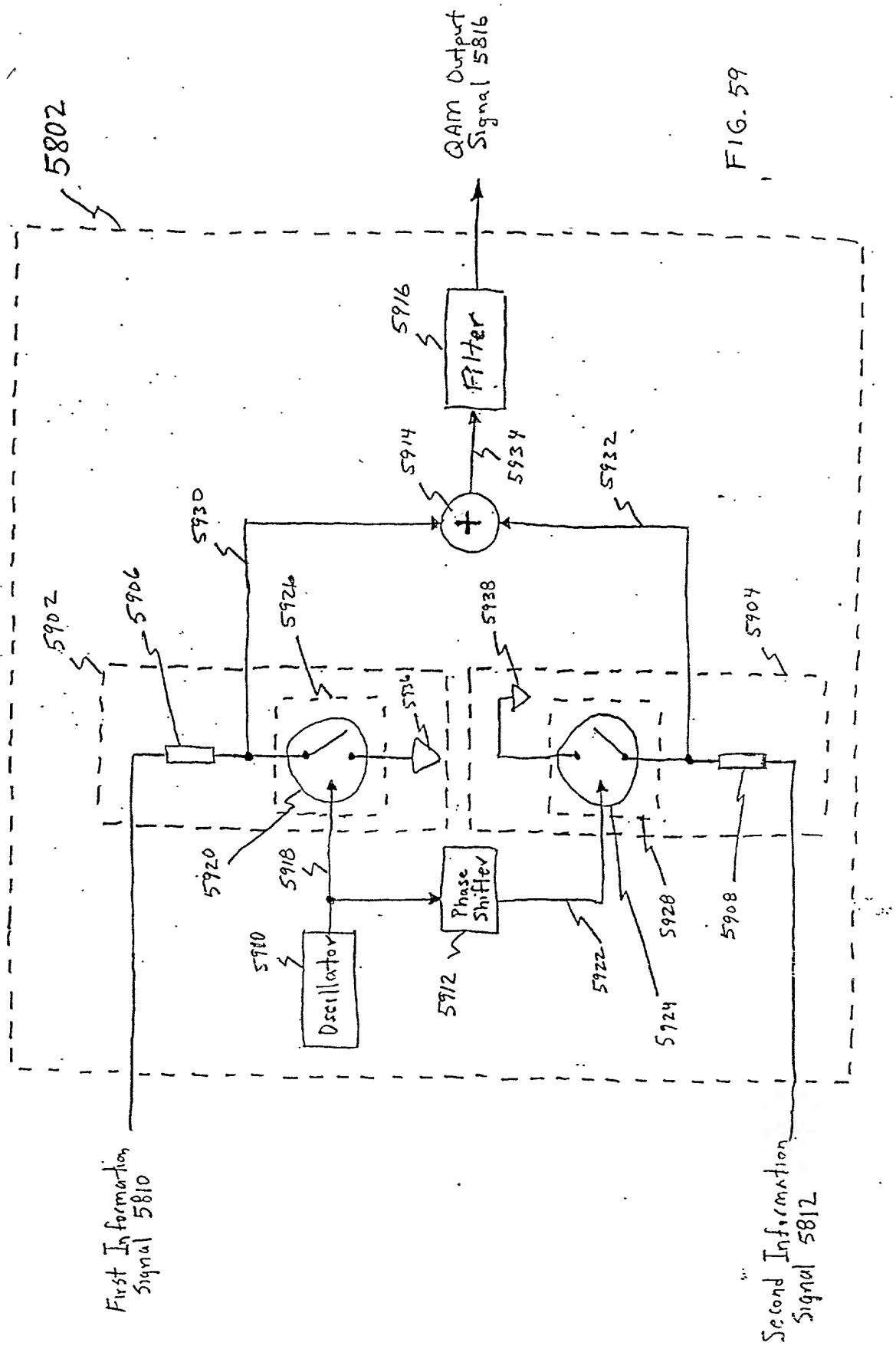
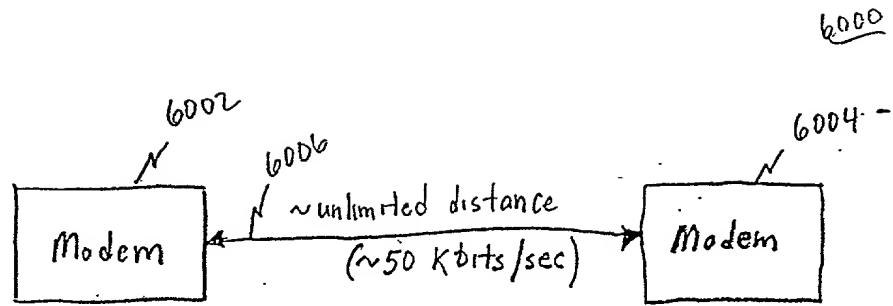


FIG. 59

10000 10000 10000



6000

FIG. 60

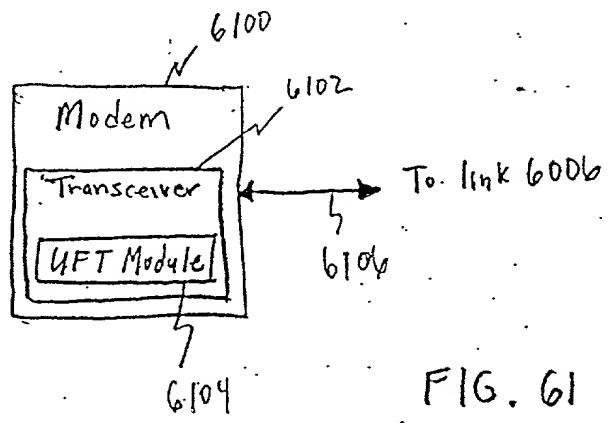


FIG. 61

FIGURE 60

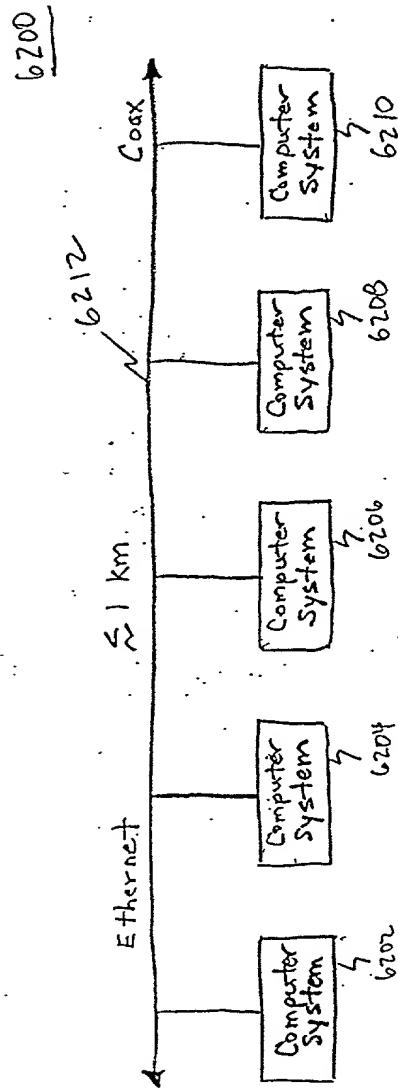


FIG. 62

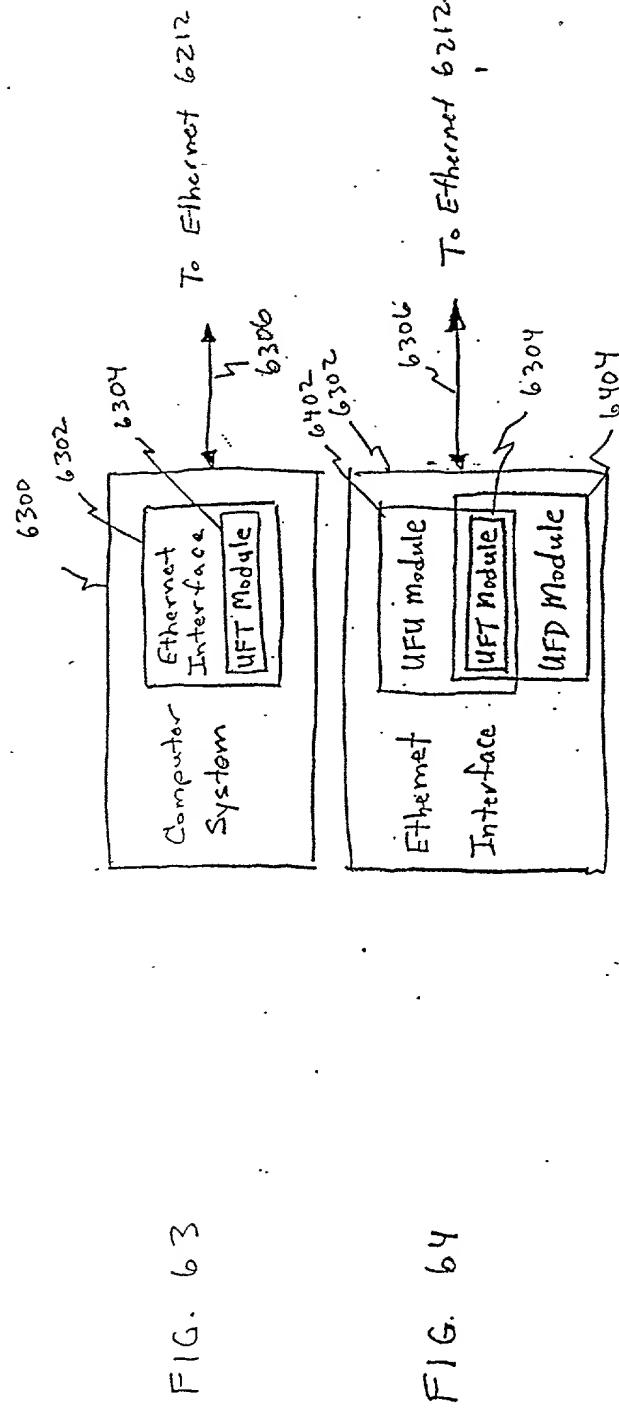


FIG. 63

FIG. 64

FIG. 65

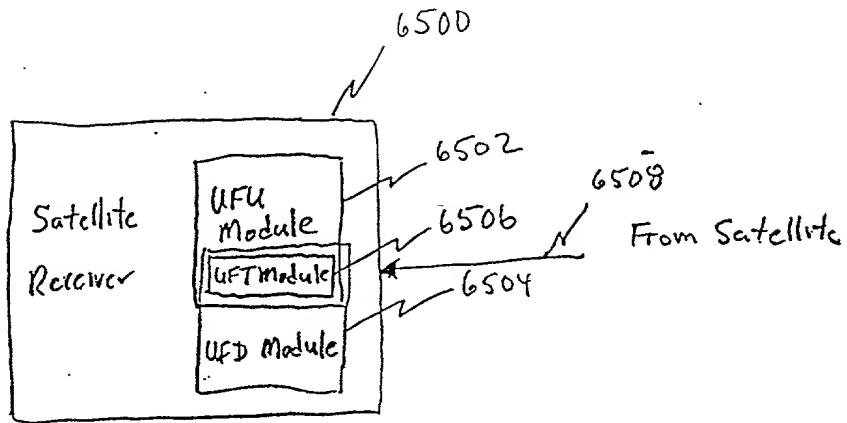


FIG. 66

